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ABSTRACT

Staff development programs are seen by many as the means to solving many educational problems. This study identifies staff needs and the staff development strategies that teachers in Individually Guided Education (IGE) elementary schools prefer. Divided into four chapters, this study offers suggestions for principals, inservice coordinators, teacher training institutions, and others responsible for staff development programs. Chapter I provides background information and past research pertaining to staff development programs. Chapter II details the research methodology used for this report. Chapter III describes and analyzes the data: and Chapter IV concludes this study with a summary and implications for practice and further research. Appendices include a bibliography, several of the questionnaires used for the study, and charts and figures detailing the results. (CJ)

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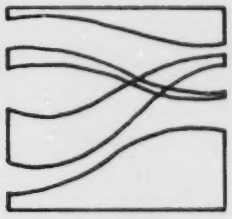

Technical Report No. 543

Staff Development Needs in Elementary Schools that Individualize Instruction

by Patrick J. Fleming

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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June 1980

Wisconsin Research and Development
Center for Individualized Schooling

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Technical Report No. 543

STAFF DEVELOPMENT NEEDS IN ELEMENTARY SCHOOLS THAT INDIVIDUALIZE INSTRUCTION

by

Patrick J. Fleming

Report from the Project on
Studies of Implementation of Individualized Schooling

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June 1980

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- providing assistance to educators which helps transfer the outcomes of research and development to improved practice in local schools and teacher education institutions

The Wisconsin Research and Development Center is supported with funds from the National Institute of Education and the University of Wisconsin.

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ABSTRACT

STAFF DEVELOPMENT NEEDS IN ELEMENTARY SCHOOLS

THAT INDIVIDUALIZE INSTRUCTION

Patrick Joseph Fleming

Under the Supervision of Professor Marvin J. Fruth

The purpose of this study was to identify the staff development needs and preferred strategies of teachers as related to the number of years their schools have been engaged in individualized schooling. All the teachers and principals in nine IGE elementary schools were surveyed to ascertain their perceived staff development needs and preferred strategies. One I & R unit was randomly selected in each school and each teacher in the unit was interviewed. The focus of this research was to see if teachers in schools that are in the early phase of the implementation process would have the same needs as those in the later phases of the implementation process. In addition to information regarding the perceived needs and preferred strategies of teachers, other demographic information was obtained.

The theoretical and conceptual foundation for this study included change theory as well as the literature on staff development and teacher participation. Change theory provided the basis for understanding the process of change during the implementation phase.

Four major theoretical models and their interrelationships were presented: (a) the research, development, and diffusion model, (b) the social interaction perspective, (c) the problem-solver perspective, and (d) the linkage model. The change models provided the theoretical framework for studying the relationship between individual needs and stage of implementation which was measured by using the surrogate variable of time.

The methodology used in this study was survey research. A field study methodology was employed using both questionnaire and interview techniques of survey research. The staffs of 9 elementary schools were visited, and questionnaires were uniformly administered to 174 teachers and the 9 school principals. A structured open-ended interview was used with 41 teachers (1 I & R unit in each school) to seek further verification of what had been previously stated, to probe for more information, and to clarify the interpretations of various terms. The data were presented in tabular form and analyzed using a two-group discriminate analysis.

The following conclusions can be made from the data described in this study:

1. One can conclude from the data reported in this study that the greatest staff development needs identified by both principals and their staffs deal with interpersonal or human relations topics. While teachers and principals in this study agreed on the need for interpersonal staff development activities, they disagreed on the specific topics to be dealt with. Teachers

overwhelmingly see motivating students as their greatest staff development need but indicated that they had a great deal of experience with this topic in prior staff development/inservice programs.

2. Teachers indicated quite strongly that they wanted to participate in all aspects of inservice program development. They reported their willingness to identify needs and to plan, implement, and conduct activities as well as to participate in them. The principals, however, also indicated a need to be involved in conducting inservice programs. Teachers also indicated that they desired help from outside resource agents, such as college/university professors and professional education agency staffs. Teachers reported that they have not attended as many staff development programs as they wanted to because of scheduling problems. Teachers did indicate, however, a willingness to conduct and participate in ongoing needs assessments and inservice programs which may accurately identify their staff development needs.

3. The results of this study did not discriminate between the perceived staff development needs of teachers in the early phase of implementation and those in the later phase. It can be concluded, therefore, that the staff development needs of teachers in both the "early" and "late" phases of the implementation process appear to be quite similar.

Based on findings reported in this study, a number of implications for practice and for future research were addressed.

Approved Maurice J. Smith

Date May 9, 1980

CHAPTER I

INTRODUCTION TO THE STUDY

In the last decade, school districts in the state of Wisconsin, as in many areas of the nation, have experienced a substantial growth in the number of services that have been added to meet the diverse needs of their student clientele. Although many of these services have been added as a result of successful lobbying by various special interest groups within their respective communities, many more have been mandated by federal and state legislation. P.L. 94-142, Chapter 115 of the Wisconsin statutes, and the "13 Standards" put forth by the Wisconsin Department of Public Instruction are three examples that have had a large impact on local school district budgets. All of these additional services have proven to be quite costly, specifically in the form of additional salaries.

While most districts have added programs and staff in the last few years, they have also experienced double digit inflation and declining enrollments. While fixed operating costs continue to soar, state aides allocated to the number of students in the district continue to decline with enrollments.

Public taxpayers have witnessed their school populations going down and have experienced the pain and trauma of seeing their local neighborhood schools being closed while their school taxes continue to rise. Critics of the public schools say that not only

are costs going up but that the quality of education is going down. They cite declining achievement test scores, increases in assaults on teachers by students, vandalism, and drug use by students as evidence that the schools are failing in their mission. While costs are up and enrollments are down and the quality of education is in question, the public is demanding greater accountability from its schools.

Educators have responded to these demands for greater accountability and have acknowledged the fact that there are problems within the educational system at this time. In many districts they have increased efforts to assess the present and future needs of the educational system and to develop extensive programs to meet these needs.

Staff development programs are an example of efforts to address several present and future needs. Declining enrollments have created a situation where elementary teaching staffs are maturing. Continuous staff development programs, one of the 13 Standards, are intended to offer teaching staff the opportunity for professional growth and development in order to keep up on the latest changes in the teaching profession. Extensive staff development programs have been developed especially at the building level (Dillon, 1976).

Since declining enrollments were felt in the elementary schools first, a great deal of interest was focused at this level to ascertain the quality of the educational program, specifically the basic skill areas, i.e., reading, writing, and mathematics. Parents and other

interested people want to be assured that their children are receiving a strong emphasis on reading ability, writing skills, and math computation.

In an effort to meet the diverse needs of their students within the confines of cost controls and still maintain high standards of teaching excellence in the area of basic skills, educators have sought alternative forms of education to assure themselves and the public alike that high levels of academic achievement need not suffer in the efforts to meet the complex needs of today's youth. An example of one of these alternative programs that attempts to meet the individual needs of each child and still maintain high levels of academic achievement is Individually Guided Education (IGE) which was developed at the Wisconsin Research and Development Center for Individualized Schooling (R & D Center), a national research center funded by the National Institute of Education. The Wisconsin R & D Center too has emphasized staff development in its design and implementation of the Individually Guided Education (IGE) system. According to Klausmeier (1977, p. 9), "staff development programs are crucial to the successful implementation of this major educational change."

The purpose of this study was to identify the staff development needs and preferred strategies of teachers as related to the number of years their schools have been engaged in individualized schooling.

Background of the Study

After one year of data collecting, the Studies of Implementation, a research component of the Wisconsin R & D Center, identified staff development programs as a key variable in their study of the process of change in elementary IGE schools. As reported in Foundations of the Studies of Implementation: The Innovation and Research Sites, Technical Report No. 494, Davis, Klenke, and Barrows (1979), this 3-year longitudinal study will examine what changes an innovation, IGE in this case, goes through in the implementation process. This researcher became interested in the study of the role staff development plays in the implementation of IGE, specifically, to what extent the staff development needs and preferred strategies of teachers varied from school to school and at what phase of the implementation process.

This research focused on elementary schools in the state of Wisconsin that are involved in individualizing instruction for their students through the use of the Instructional Programming Model (IPM), a functional component of IGE.

IGE began at the University of Wisconsin-Madison in 1965 under the direction of Professor Herbert Klausmeier (Klausmeier, Rossmiller, & Saily, 1977). IGE is defined as

> a comprehensive alternative to schools organized in either age-graded, self-contained classrooms or in subject-centered departments, and it represents a change of great magnitude (p. 1).

IGE has been continually revised and refined by the Wisconsin R & D Center and implemented in a large number of elementary schools nationwide. Seven IGE elementary schools were established in 1967, but there were 50 by 1969. In 1972 there were over 500 IGE elementary schools, and this number grew to over 1,700 by 1974. In 1978 it was estimated that there were over 2,000 IGE elementary schools in 35 states and in some foreign countries (Goodridge, 1975). State, regional networks, and district networks have been formed, as has the national Association of Individually Guided Education (AIGE) which has just recently assumed the responsibility for the implementation of the innovation nationwide.

IGE is not simply "individualized instruction"; rather, it is an alternative educational system consisting of the following seven components (see Figure 1.1): (a) the multiunit organization; (b) instructional programming for the individual student; (c) assessment and evaluation for educational decision making; (d) curriculum materials compatible with (b) and (c); (e) home-school-community relations; (f) facilitative environments; and (g) continuing research and development. The goal of IGE is to increase academic achievement by recognizing individual student differences in such areas as learning styles, degree of motivation, and learning rate.

It was the purpose of this study to identify the staff development needs and preferred strategies of teachers as they relate to the number of years their schools have been engaged in

Figure 1.1: Seven components of individually guided education.

Source: N. A. Evers, M. J. Fruth, J. J. Heffernan, M. L. Karges, and W. E. Krupa. IGE implementor's manual (1st edition). Madison, Wisconsin: Wisconsin Reserach and Development Center for Cognitive Learning, April 1975.

individualized schooling. An understanding of how the staff development needs and preferred strategies of teachers change over a period of time during the implementation of an innovation will further the understanding of the process of planned change.

A Review of Related Literature

The social sciences have seen the growth of an emerging discipline focusing on the process of change, information, and knowledge utilization. In 1954 there were only 50 change studies reported in the literature but by 1964 there were over 500 such studies. By 1969 there were estimated to be over 10,000 relevant references in existence pertaining to knowledge dissemination and utilization, and the largest number appear to have been done in the field of education with agriculture a close second (Havelock, 1969).

The vast body of literature on change has many strands. This review of the literature on change discusses three of these strands. Four major theoretical models and their interrelationship will be presented first. The second part of the literature review will focus on the role of staff development as it relates to educational change. The third and final strand to be analyzed will be the role of teacher participation in the change process.

Change

In 1969 Havelock et al., reviewed over 4,000 studies done in the area of knowledge dissemination and utilization. They con-

cluded that change is phasic in nature but not necessarily linear. They further pointed out the need for sequential and programmatic research and development based on one of the following models.

Research, Development, and Diffusion (RD&D) Model

The Research, Development, and Diffusion (RD&D) Model is focused on innovation development using a rational developmental process. The sequence of activities suggested by this model are outlined in Figure 1.2. Undergirding the RD&D model are several key assumptions: (a) the development process consists of a rational sequence of activities; (b) planning occurs on a massive scale; (c) there is a division of labor and separation of roles; (d) the consumer plays a passive role; (e) scientific evaluation is necessary; and (f) initial development costs are high. This paradigm can be very useful and relevant for technical and social change. Prototypes of the RD&D model exist in industry, defense, and the aerospace industry.

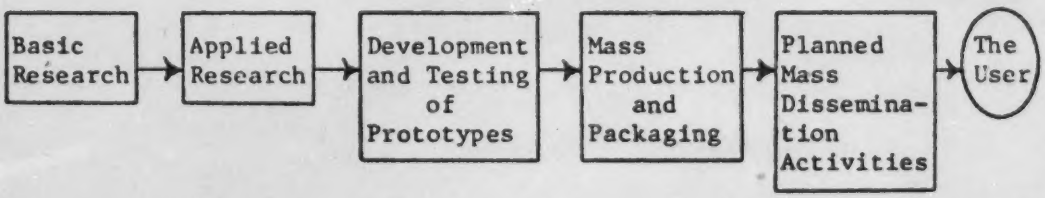


Figure 1.2: The research, development, and diffusion view of the change agent.

Source: G. Zaltman, D. Florio, and L. Sikorski. Dynamic educational change. New York: Free Press, 1977.

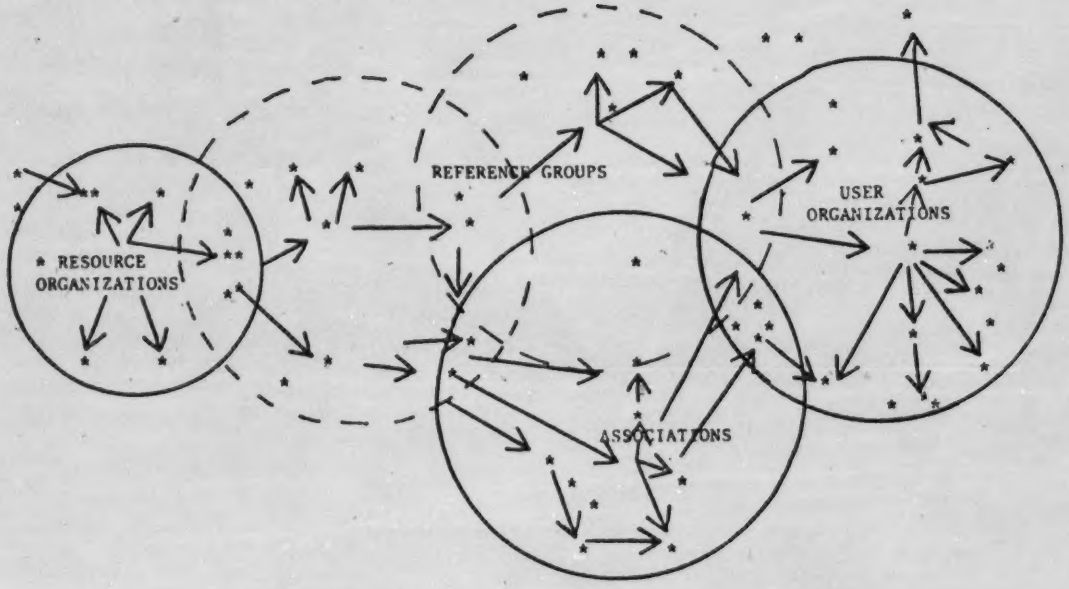
The RD&D model is designed to deal with dissemination and utilization at the macro-systematic level because it divides the knowledge flow system into different functional roles. It is presently the rationale for the current policy planning agencies of many institutions including the United States Office of Education.

According to Havelock (1969), the RD&D model in its present form is overly ideal and too research oriented. Gross and others (1979) have redefined the RD&D model to make it more responsive to user needs.

Social Interaction Perspective

The Social Interaction Perspective on the change process emerged from anthropological studies of the diffusion of cultural traits. This perspective on change has been used by educational researchers to understand the diffusion of innovations. It assumes that the innovation that is to be diffused is tangible and clearly defined. The focus of research using this perspective is on the diffusion of such discrete innovations. Figure 1.3 illustrates the diffusion process in the social interaction model.

Havelock (1969) identified six major premises inherent in the social interaction perspective: (a) social relations networks are important; (b) the importance of the user position in that network; (c) the significance of informal personal relationships and contacts in that network; (d) the importance of reference group



Key:

* Individuals in the social system

→ Flow of new knowledge

——— Formal organizational structures

- - - - Informal structures

Figure 1.3: The social interaction view of the change process.

Source: R. G. Havelock and M. G. Havelock. Training for change agents: A guide to the design of training programs in education and other fields. Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, The University of Michigan, Ann Arbor, Michigan, 1973.

identification; (e) the essential irrelevance of the size of the adopting unit; and (f) the differential significance of different types of influence strategies at different stages (phases) in the adoption process.

An example of how research uses this perspective would be the classical studies done by Ryan and Gross (1943) on the dissemination of seed corn. They had a tangible innovation (hybrid seed corn) and disseminated the concept successfully to farmers. Since then there have been over 1,000 similar studies.

While the social interaction perspective lends itself to quantitative studies, it has not been studied in relationship to how an innovation changes as it goes on diffusing through a system. The processes of misadaptation, inappropriate adoption, and total rejection have not been adequately covered. What is needed is an internal process model of dissemination and utilization inside the user to hold the innovation constant (Havelock, 1969).

Problem-Solver Perspective

The Problem Solver Perspective is based on the primary assumption that knowledge utilization is only one part of a problem-solver process of the user. The user starts with a need and ends in the satisfaction of that need. This process is cyclic. The problem-solver perspective is essentially a user-oriented approach. Associated with the human relations aspect of planned change, it asks the question, "Why are we implementing this innovation?"

Problem-solver theorists point to five major points to this perspective on change: (a) start with the user's world in the implementation process; (b) the user has to acknowledge that a problem exists and be able to translate it into a problem statement; (c) the role of the external consultant is to serve as a catalyst; (d) the retrieval of internal knowledge and resources system should be at least equal to that of the external retrieval system if not more; and (e) the best motivational climate to ensure lasting change lies with the self initiation of the client group (Havelock, 1969). (See Figure 1.4.)

There are three weaknesses to this model. First, the active role of the user system as prescribed by this model may be debilitating. Second, minimal use of outside resources may be naive and inefficient. Finally, the model does not explain the entire change process but focuses primarily on innovation development (Havelock, 1969).

The Linkage Model

The Linkage Model is an eclectic model developed by Havelock that incorporates the best features of all three models. The concept of linkage unifies the perspectives of RD&D, social interaction, and problem solver. It starts with the user as a "problem solver" who has a "felt need" that leads into a "diagnosis" and "problem statement" and works through "search" and "retrieval" phases to a "solution" and the "application" of that solution. The user has to

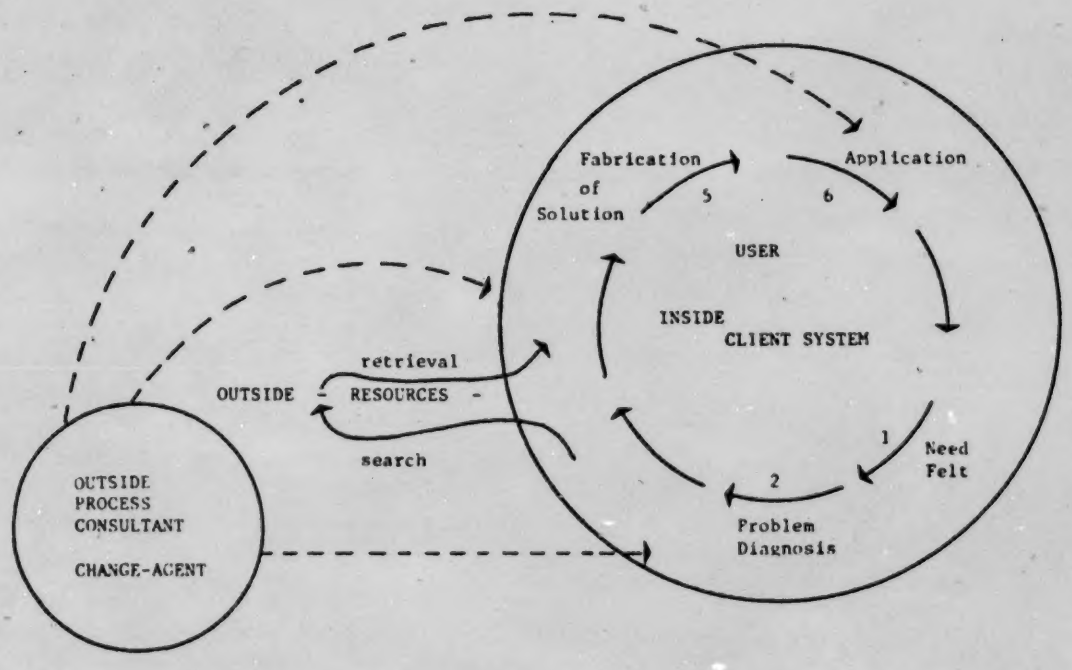


Figure 1.4: The problem-solver view of the change process.

Source: R. G. Havelock and M. G. Havelock. Training for change agents: A guide to the design of training programs in education and other fields. Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, The University of Michigan, Ann Arbor, Michigan, 1973.

be meaningfully related to outside resources. By stimulating the user's need, the resource agent will be able to communicate that need to other agencies. This chain of linkage with remote resource persons to remote consumers is known as the "macrosystem" of knowledge linkage. The prime task of knowledge utilization is to bring the great subsystem of research, development, practice, and user into effective linkage which is the essential process in any effort at planned change. Figure 1.5 depicts the linkage system between the resource and user systems.

In summary, a review of the change literature indicates that there are several predominant perspectives of the change process. Each attempts to explain and describe a very complex process. Even though there are several perspectives on change, the varying perspectives have certain common features. All, for example, depict the change process as phasic, i.e., attempting to implement change through sequential stages. The research implication of this depiction of change as phasic is that those attempting change may be at varying stages during implementation. Conceivably, the inservice needs and preferred staff development strategies of teachers may vary according to the phase of those implementing the change.

Staff Development

Given that implementation is such a complex process, there are numerous variables that could possibly influence it. The

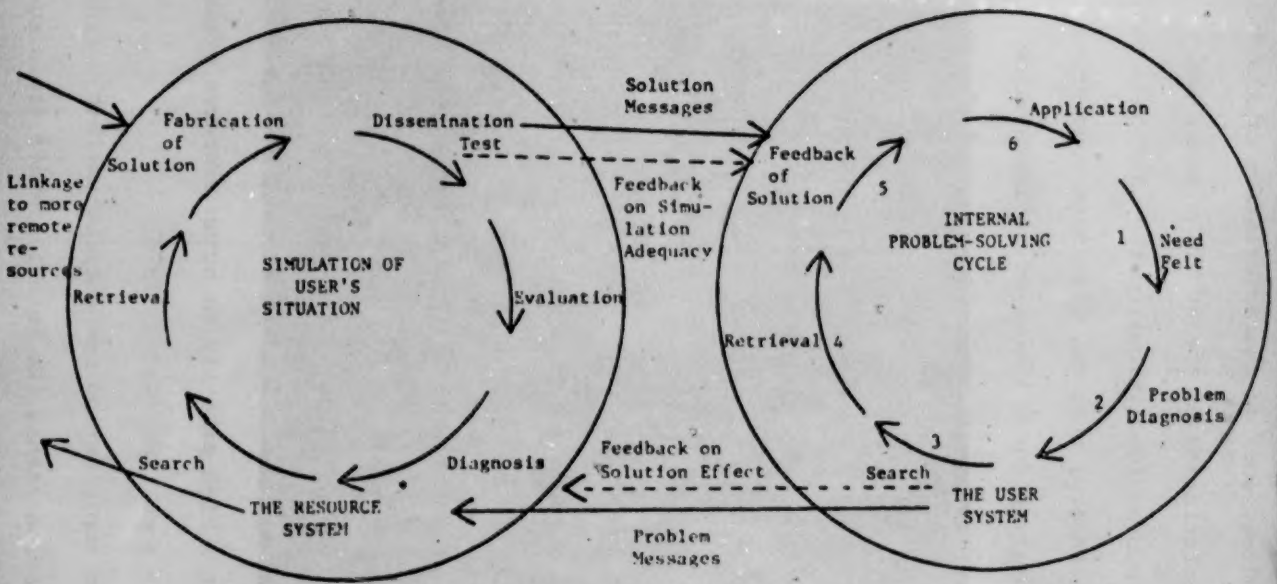


Figure 1.5: A linkage view of resource--user problem-solving.

Source: R. G. Havelock and M. G. Havelock. Training for change agents: A guide to the design of training programs in education and other fields. Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, The University of Michigan, Ann Arbor, Michigan, 1973.

literature suggests several common factors that have been frequently identified in various studies, such as characteristics of the innovation, strategies, characteristics of the adopting unit, and characteristics of the macro-sociopolitical units. Although these factors do not constitute theory, they do, with more conceptual development, set the foundation for a theory of implementation.

Strategies and tactics are an integral aspect of the implementation process. Methods are employed to introduce and implement innovations. Inservice education is listed as an important strategy or tactic in the implementation of an innovation.

> It appears that intensive inservice training (as distinct from single workshops or preservice training) is an important strategy for implementation. Apparently, this experience functions to provide teachers with demonstration models and experiences as well as psychological reinforcement conducive to resocialization (Fullan & Pomfret, 1977, p. 373).

Efforts to affect change through the staff development or inservice training process are not unique to education. Business and other fields have put a high priority on human resource training and development for quite some time (Craig, 1976).

In the process of implementing new curriculum into a system, traditional approaches have stressed the need for staff training (Tempkin, 1974). Case studies on the process of change by Turnbull

and others in 1974 have provided empirical evidence showing that training of staff is important in affecting change. These same case studies stressed the need for adequate incentives for both the trainers as well as the trainees (Zaltman, 1977).

Both inservice and preservice training are important for the introduction of information into an organization (Zaltman, p. 303). The new member of an organization can bring in both new and current information and experiences that he or she has had in other positions.

Zaltman has said that the developers of educational innovations are learning that inservice training is vital in the later change stages for effective use of complex products.

Inservice education is seen by many as a common catalyst for institutional change (Walker, 1978). The need for institutional change is apparent, i.e., to improve instruction at the classroom level. The process approach to inservice training has shown that what teachers actually want and need is not what universities have offered them. It has been shown that what teachers say they want is actually quite different from what they really need once the process is completed. Two-thirds of what teachers need is directly related to specific day-to-day problems. Their need is not a regular three-hour course on a Tuesday night which is so often what is offered to them (Petrie, 1978).

Schools do need help although much of the process of solving the problems of learners in the classroom can be carried out only by

the local staff. They will be much more effective in finding solutions to their local problems if given help from the outside colleges of education (Hite, 1978). To achieve successful implementation of an innovation, the resocialization of the participants must take place. Rand researchers found that the amount of staff training was related to teacher change (Fullan & Pomfret). Berman and McLaughlin stated that the absence of staff development training was likely to reduce the perceived success and the amount of teacher change on projects (p. 359).

Davis (1978), as shown in Figure 1.6, provided a model of an instructional system design that serves as an outline from which to review the literature pertaining to staff development. Davis suggested five broad areas or elements of an instructional system, the learner(s), teacher(s) or trainer(s), time structure, physical environment, and instructional strategies and materials. Based on these elements, Davis identified five more factors that tend to constrain the design of an instructional system. They include: the topic(s) and objective(s) of instruction, the motivation of intended participants, the availability of resources, the instructional requisites, and evaluation.

According to Davis (1978), "The single most important factor affecting the design of an instructional system, inservice or otherwise, is the topic to be addressed and the desired learning outcome to be attained" (p. 7). Jensen, Bentz, and Zigami (1978) in a study

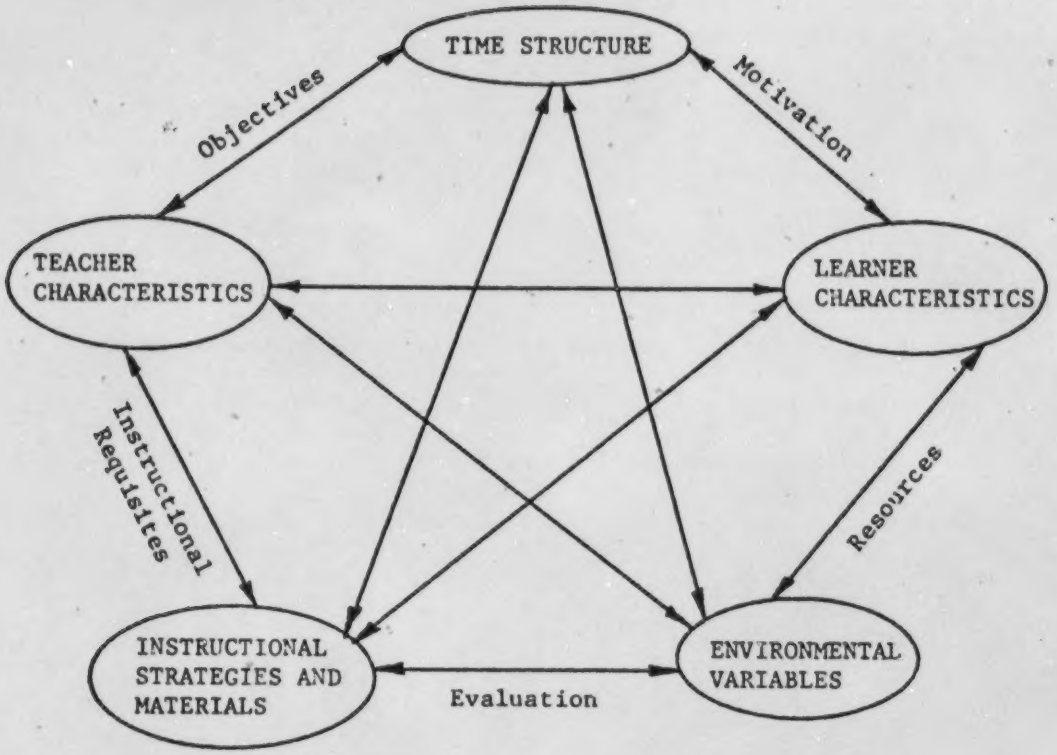


Figure 1.6: A model of instructional system design.

Source: W. J. Davis. Designing inservice professional development for school principals: Preferred structures. In W. J. Davis, J. A. Culbertson, and P. F. Silver (eds), Staff development opportunities for title I principals: Concepts methods, and strategies. Washington, D. C.: U. S. Office of Education, 1979.

of South Dakota teachers found that 98% of the teachers surveyed indicated that staff development programs should be based on specific objectives formulated from a needs assessment. Many studies on successful inservice programs or how to improve staff development programs have stressed the importance of identifying topical needs as perceived by teachers (Kleiman, 1975; and King, 1976).

Motivation is essential, according to Davis, to attract the intended participants and motivate them to learn. One of the most cited strategies to motivate teachers in the staff development process is to solicit their participation right from the beginning of the planning process. The literature on teacher participation is reviewed in the last part of this section.

Teacher Participation

> Effective change will never occur until the role of the user in the process is radically altered so that he is ultimately involved in all stages of the innovative process (Fullan, p. 43).

It is widely thought to be an effective strategy, in the process of implementing an innovation, to elicit the participation of the people who are expected to implement the new program. Fullan and Pomfret saw participation as "one of the most theoretically prominent independent variables in the innovation literature. Questions about the nature, timing, scope, and intensity of participation

are left unanswered" (p. 376).

Gross found that when faculty were not involved in the discussion on proposed major changes that would affect them they would quickly turn against the innovation at the slightest provocation. Participation was also touted as a valid strategy to elicit support of teachers and others (Gross, 1979).

User participation in the decision-making process is a commonly cited variable in successful innovation implementation. Teacher participation in the decision-making process is central to both organizational administration and the planned change process (Lipham, 1974). Although administrators have historically used their authority to make policy decisions and then have their subordinates carry them out, the concept of participation in the decision-making process by subordinates has emerged as a basic principal of organizational management.

The higher the level of decisional involvement, the higher the degree of job satisfaction was one of the findings of Feldman's research into the relationship between teachers' involvement in and satisfaction with the decision-making process in IGE elementary schools. He also found that teacher satisfaction with their participation in the decision-making process was significantly related in a positive manner to their overall job satisfaction.

Moyle (1977) in his study of the functions, processes, and relationships of shared decision making in the Instructional Improvement Committees (IIC) and Instruction and Research (I & R) units in

IGE elementary schools found considerable satisfaction with the way decisions were made by the IIC. The most prevalent form of participation, however, is after the decision has already been made to implement an innovation. The participant population can be described then as accepting the innovation and volunteering to implement it. Most of these studies have focused on the role of the teachers as the participants. Fullan and Pomfret stress the point that research has not yet found what forms of support teachers need to be effective in facilitating decision making (Fullan & Pomfret, 1979).

Sergiovanni recognized that the inservice needs of teachers may be unique when compared to other professions in the sense that their work is often characterized by group efforts. He stressed the importance of cooperative inservice efforts to enrich the individual initiative. He said, "Nevertheless, inservice programs must be the responsibility of teachers, as well as school executives, if such programs are to provide continuous self-renewal for the work of the school" (Sergiovanni, 1974).

Rubin also supported the concept of teacher participation in the planning and implementation of staff development programs. He said,

> If there is to be significant improvement in education, the nation's teachers as professionals must participate in their own intellectual growth. They must, in short, have an improvement program that allows them to advance their professional artistry (Rubin, 1971).

While the literature supports the need for teacher participation in the staff development process, it also recognized that an effective inservice program cannot depend solely on the responses of teachers. Since there are other groups within the educational process, it would be an error to give too much credence to teacher decisions alone. "To depend solely on teacher responses for decisions may be as much in error as previous policy was patronizing" (Ingersold, 1976).

In summary, it is known that change within education is a fact of life. It is also known that there is a vast body of knowledge available on the process of change. What is common to all perspectives on change theory is that change is phasic in nature. It is a progression of events that transpire over time within a highly complex and dynamic process. A review of the literature has identified staff development as a vehicle for change. Effective staff development programs are cited as an effective force for the successful implementation of an innovation in the process of planned change. The literature suggests that in order to achieve successful staff development programs, teacher participation should be solicited. What is needed is more insight into the type of help and support teachers need to be successful in the implementation of an innovation. A better understanding of their staff development needs and preferences should enhance inservice programs facilitating the process of change.

The focus of this research study was on the staff development needs and preferred strategies of elementary teachers involved in the implementation of an innovation to individualize instruction. The purpose of this study was to see if these needs changed depending on the phase of the implementation process that the school was in. The following research questions guided this study.

Research Questions

1. Do the perceived staff development needs of teachers who individualize instruction vary according to the phase (i.e., number of years) of the implementation process?

2. Do the preferred staff development strategies identified by teachers who individualize instruction vary according to the phase of the implementation process?

3. Do individuals differ on perceived staff development needs according to role category (principal, unit leaders, teacher)?

4. Do individualize differ on preferred staff development strategies according to role category 'principal, unit leader, teacher)?

5. Do certain personal characteristics specifically, age, sex, teaching experience, and prior experiences affect the perceived staff development needs of teachers?

6. Do certain personal characteristics specifically, age, sex, teaching experience, and prior experiences affect the preferred staff development strategies of teachers?

Individually Guided Education (IGE)

Individually Guided Education (IGE) is composed of the following seven components.

The Multiunit Organization

The multiunit school organization (see Figure 1.7) is an instructional and administrative system which permits educational and instructional decision making at appropriate levels and which facilitates implementation of the other components of IGE. The basis for this organization is the Instructional and Research (I & R) unit which replaces the age-graded, self-contained classroom arrangement. An I & R unit consists of a unit leader who also teaches, 2 or 3 staff members, a first-year teacher or intern, a secretary and/or aides, and about 100-150 students.

The Instructional Improvement Committee (IIC) is chaired by the principal and is composed of all unit leaders. The IIC defines schoolwide educational programs, implements sytemwide policies, coordinates efforts of various units in relationship to curriculum integration, and schedules use of facilities and resources. The IIC also plans and implements the inservice programs. In essence, the IIC deals primarily with planning, decision making, and coordinating activities related to instruction. Matters dealing with personnel are relegated to the principal.

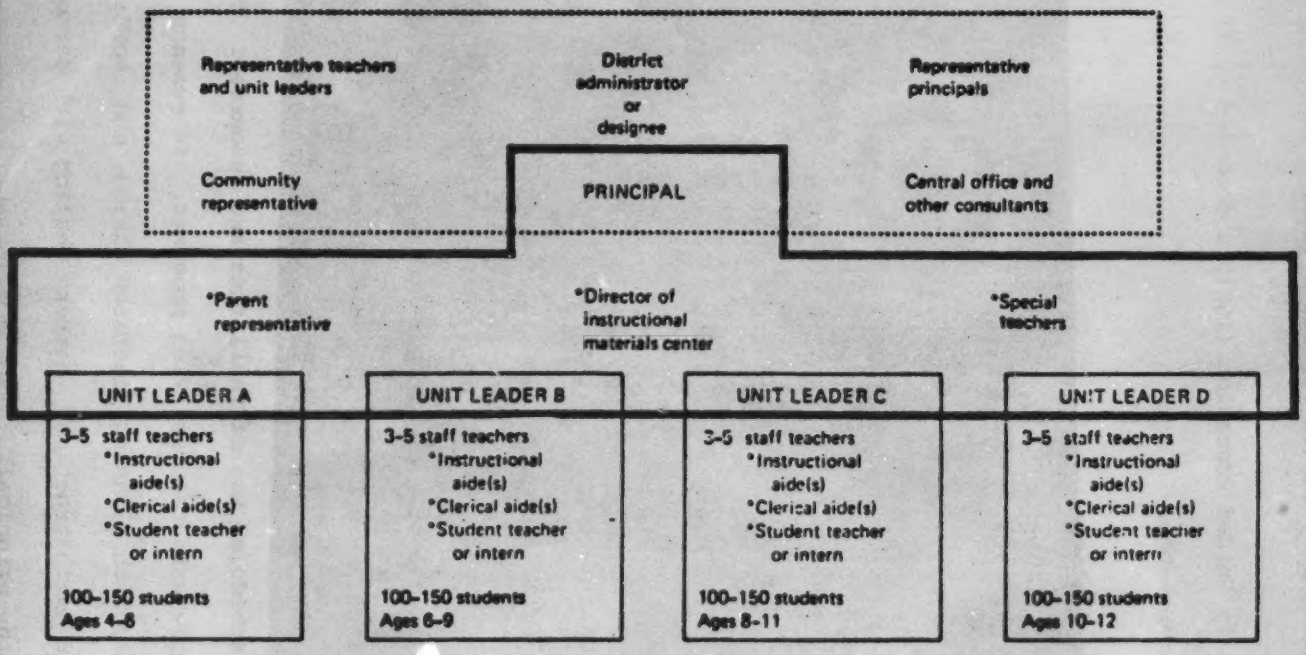


Figure 1.7: Multiunit organization of an IGE school of 400-600 students.

Source: Adapted from H. J. Klausmeier, R. G. Morrow, and J. E. Walter. Individually guided education in the multiunit school. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1968, p. 19.

The Systemwide Program Committee (SPC) is the district level of the organization. The SPC is chaired by the superintendent or his/her designee and is composed of central office staff, IGE principals, and teachers. This committee establishes functions for each IGE school, recruits personnel, provides materials, and supervises distribtuion of information. The IIC and the SPC are excellent communication systems.

The Instructional Programming Model (IPM)

The Instructional Programming Model (see Figure 1.8), the second element, is the essence of IGE. The IPM is designed to facilitate student development in cognitive, psychomotor, and affective domains. The IPM guides the IIC in formulating the instructional program for the entire school building. The IPM involves specifically stated instructional objectives and criteria of attainment and consists of a series of steps commencing with a statement of objectives for the entire school, for subgroups of the student population, and finally, for each student. The major thesis is that each child will be taught according to his or her special needs at an appropriate rate and in a manner suited to instructional motivational requirements.

During unit meetings, individual teaching programs are planned for each student. These plans include variations in instructional group size, amount of teacher-child interaction, selection of

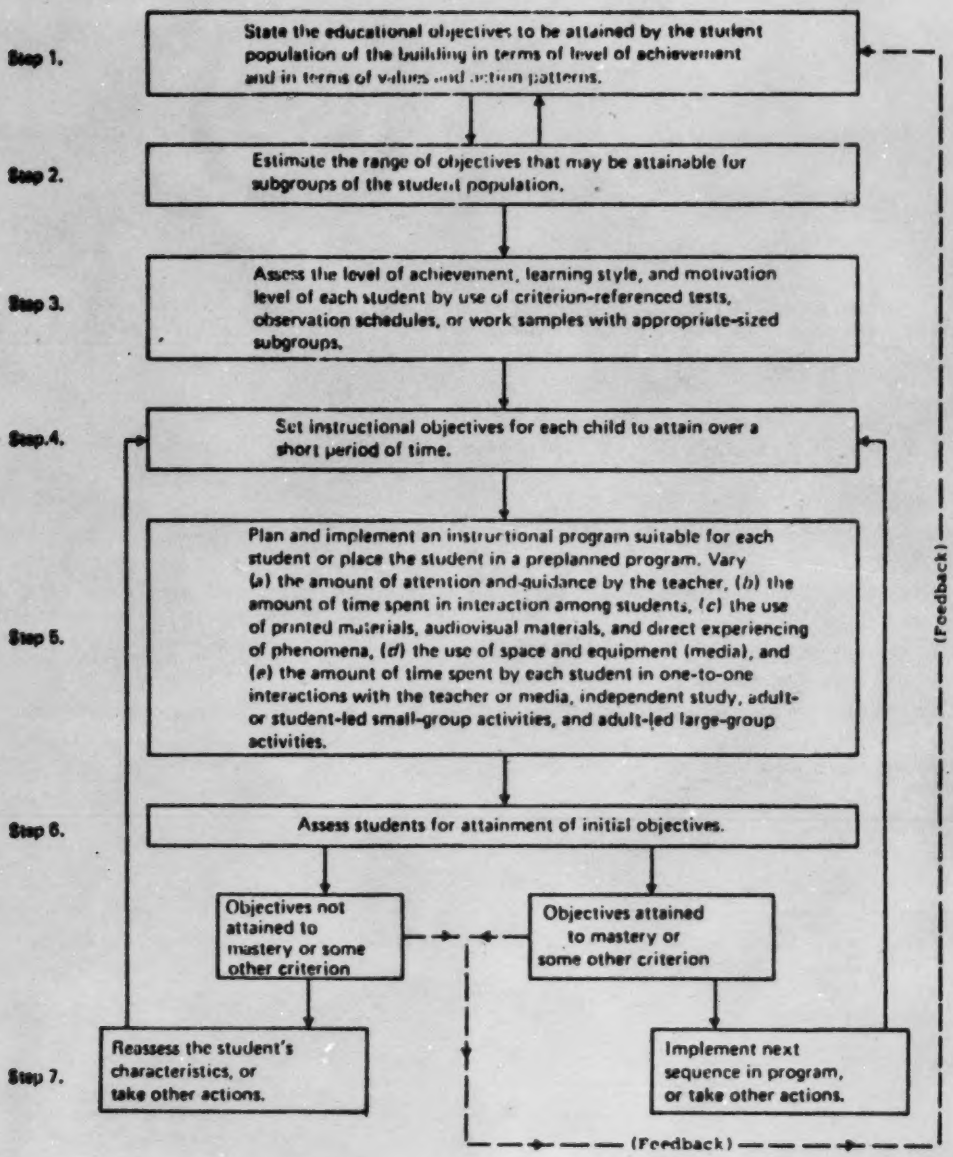

Step 1.
State the educational objectives to be attained by the student population of the building in terms of level of achievement and in terms of values and action patterns.
Step 2.
Estimate the range of objectives that may be attainable for subgroups of the student population.
Step 3.
Assess the level of achievement, learning style, and motivation level of each student by use of criterion-referenced tests, observation schedules, or work samples with appropriate-sized subgroups.
Step 4.
Set instructional objectives for each child to attain over a short period of time.
Step 5.
Plan and implement an instructional program suitable for each student or place the student in a preplanned program. Vary (a) the amount of attention and guidance by the teacher, (b) the amount of time spent in interaction among students, (c) the use of printed materials, audiovisual materials, and direct experiencing of phenomena, (d) the use of space and equipment (media), and (e) the amount of time spent by each student in one-to-one interactions with the teacher or media, independent study, adult- or student-led small-group activities, and adult-led large-group activities.
Step 6.
Assess students for attainment of initial objectives.
Objectives not attained to mastery or some other criterion
Objectives attained to mastery or some other criterion
Step 7.
Reassess the student's characteristics, or take other actions.
Implement next sequence in program, or take other actions.
(Feedback)
(Feedback)

Figure 1.8: Instructional programming model.

Source: Adapted from H. J. Klausmeier, M. R. Quilling, J. S. Sorenson, R. S. Way, and G. R. Glasrud, 1971, p. 19.

materials, and the use of resources to suit the individual needs of the child. Instructional programming helps build the positive self-regard of the student through personalized instruction by the entire team of teachers. Learning is enhanced through active participation on the part of the student in the selection of materials and other activities. After a suitable period of time the child's level of achievement is assessed and this forms the basis for a plan regarding future objectives.

Evaluation for Educational Decision Making

The third major component of IGE is a model of evaluation and assessment. This process takes place at all levels of the organization which includes the identifying problems, setting decision criteria, obtaining information, formulating alternatives, making decisions, and implementing decisions. The three stages of evaluation that comprise this model are initial, formative, and summative evaluation (Spuck, 1975).

Curriculum Materials Compatible with Instructional Programming and Assessment and Evaluation

The accessibility of curricular materials compatible with instructional programming for the individual student is necessary for the successful implementation of IGE in a given school. Efforts are made to identify superior resources and to evaluate appropriate

materials. Curriculum materials must be compatible with the instructional and evaluative components of the IGE system. These materials should be accurate and reliable, i.e., free of cultural bias, factual errors, and possible misinterpretations. The content should be learnable by the particular students for whom it is prepared. The materials and related activities should be teachable and use a minimum amount of teacher preparation time. The material should be suitable in terms of cost, attractiveness, and the amount of inservice required. Neither IGE nor any other form of schooling will improve education when the materials of instruction are either unattractive to children and teachers, or so costly that school districts cannot afford them (Klausmeier, 1977).

Home-school-community Relations

The fifth component of IGE, home-school-community relations (see Figure 1.9), attempts to bring the school into a meaningful interaction with its environment. The goal is to integrate the resources and personnel of home, school, and community towards achieving better awareness, understanding, and utilization of resources for the mutual benefit of all. Home-school-community relations in the IGE school encompasses all three levels of the district community, the local school level, and the instructional level. IGE relys on involvement by parents and citizens as well as staff and students. There are extensive programs involving parental and citizen involvement in school affairs comprised of

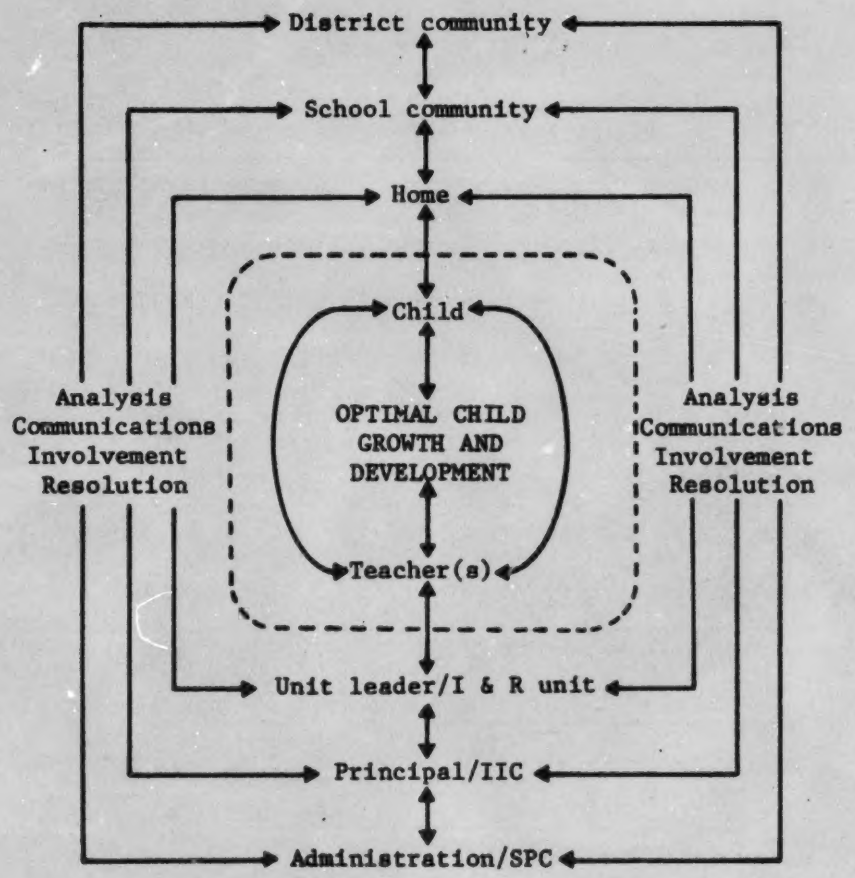


Figure 1.9: Home-school-community relations in the IGE school.

Source: Adapted from B. D. Bowles and M. J. Fruth. Improving home-school-community relations. In J. M. Lipham and M. J. Fruth, The principal and individually guided education. Reading, Massachusetts: Addison-Wesley Publishing Co., 1976.

analysis and resolution of educational problems, participation in school activities, and conflict resolution through effective communication.

Facilitative Environments

A system of facilitative environments is recognized as a need to strengthen and maintain the IGE schools by systematic planning, programming, budgeting, and evaluation of the resources and the facilities required to stimulate and sustain the IGE concept. Each IGE school becomes self-renewing through a system of supportive and facilitative environments and may be classified either as intra-organizational or extra-organizational (see Figure 1.10). Intra-organizational environment is represented in the multiunit organizational structure where the focus is on providing the resources needed for learning instruction. Extra-organizational environments are represented by state IGE networks, regional education agencies, and local education agencies as well as teacher education institutions.

Continuing Research and Development

The seventh and last component of IGE is a program of continuous research and development to ensure improvement of the program. Without a viable research and development effort, an IGE school will become staid, rigid, and inflexible, and in time unresponsive to the needs of individual students.

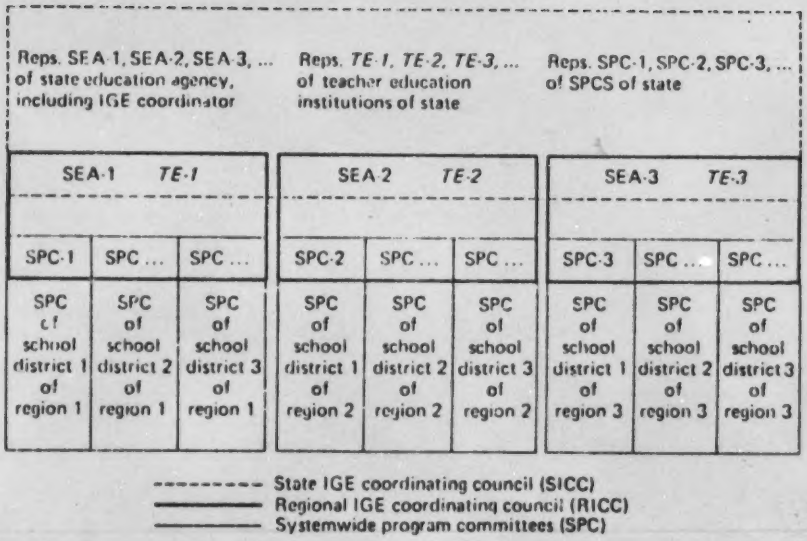

Reps. SEA-1, SEA-2, SEA-3, ... of state education agency, including IGE coordinator
Reps. TE-1, TE-2, TE-3, ... of teacher education institutions of state
Reps. SPC-1, SPC-2, SPC-3, ... of SPCS of state
SEA-1 TE-1
SEA-2 TE-2
SEA-3 TE-3
SPC-1
SPC ...
SPC ...
SPC-2
SPC ...
SPC ...
SPC-3
SPC ...
SPC ...
SPC of school district 1 of region 1
SPC of school district 2 of region 1
SPC of school district 3 of region 1
SPC of school district 1 of region 2
SPC of school district 2 of region 2
SPC of school district 3 of region 2
SPC of school district 1 of region 3
SPC of school district 2 of region 3
SPC of school district 3 of region 3
State IGE coordinating council (SICC)
Regional IGE coordinating council (RICC)
Systemwide program committees (SPC)

Figure 1.10: Organizational arrangement of a state-regional-local IGE network.

Source: From H. J. Klausmeier, J. E. Walter, and L. J. Lins. Manual for starting and maintaining state IGE networks. Madison, Wisconsin: University of Wisconsin/Sears-Roebuck Foundation IGE Teacher Education Project, 1974.

In addition to the seven components, there are a series of major outcomes developed for IGE schools. Specific performance objectives have been developed for the SICC, RICC, implementor, and local education agency (LEA) personnel to help them in meeting their goals. The documentation of these major outcomes and written specific performance objectives for IGE are invaluable in aiding schools to attain the preferred climate and for them to evaluate their growth.

The question has been asked by many theorists as well as practitioners, "When is a school an IGE school?" The answer is when one has implemented the multiunit organizational structure, the Instructional Programming Model, and related assessment and evaluation procedures in at least one curricular area and when one is in the process of implementing a home-school-community relations program. The school should also be involved in an established system of facilitative environments for assessing the needed resources for the continual improvement of the organizational program (IGE Implementation Manual, Wisconsin R & D Center, Fruth, 1976).

The Role of Staff Development in Implementing IGE

There are five major phases in the implementation of IGE with the last two being combined for operational purposes. The phases are awareness, commitment, changeover, refinement, and renewal. For each of these phases of the implementation process,

there are major outcomes, role-specific performance objectives, and staff development activities for the staff of a prospective IGE school. As shown in Figure 1.11, the proposed sequence format is organized to indicate the phase of the implementation, the activity, objectives of the activity, the approximate time frame in a school year, the participants in the activities, and the person or agency who is responsible for the activity.

Krupa et al. (1977), stated that there are a number of conditions that affect the amount of staff time given to the awareness, commitment, and changeover phases of the implementation process. The time limits established by the local school districts for staff development must be adhered to and that inservice programs related to awareness, commitment, and changeover must be carried out within these time limits. Consequently, the time demands will vary greatly from district to district.

To facilitate the implementation process, a building staff should be organized into I & R units, have established an IIC, and outlined their plan for assessing and grouping students so that they can start instructional programming in at least one curricular area.

Good prior planning and a demonstrated commitment before actual changeover will lessen the need for staff development during the first year of changeover. The reverse is also true, however.

The amount of time needed for awareness-commitment planning activities is also related to the motivation and incentives to change.

Implementation Phase	Activity	Approx. Time	Participant(s)	Presenter	General Activity Objective(s)
Awareness	One-day IGE awareness conference	Oct.-Nov.	Local school district decision makers (i.e., supt., principal, teachers, etc.)	Implementation agency	To provide school district decision makers (1) overview information about IGE in order to help them understand IGE and to stimulate them to adopt IGE and (2) information regarding required school district commitments and how to gain those commitments in order to make the decision to adopt IGE.
Commitment	Awareness follow-up work session	Nov.-Dec.	Local school district decision makers (i.e., supt., principal, teachers, etc.)	Implementation agency	To provide school district decision makers (1) additional information for conducting staff IGE overview sessions and for gaining commitment and (2) opportunities to develop skills necessary for conducting staff IGE overview sessions.
	Staff meeting	Dec.-Feb.	School staff members	Local education agency personnel who attended Awareness Conference, with assistance from implementation agency	To provide school staff members overview information about IGE in order to stimulate them to agree to the adoption of IGE and to make a commitment to IGE.
	Visits	Dec.-Feb.	Interested local education agency personnel	Local education agency personnel who attended Awareness Conference, with assistance from implementation agency	To provide interested school district personnel the opportunity of visiting an IGE school in operation.
	School board meeting	Dec.-Feb.	School board members	Local education agency personnel who attended Awareness Conference, with assistance from implementation agency	To provide school board members overview information about IGE in order to stimulate them to agree to the adoption of IGE and make a commitment to IGE.
	Parent meeting	Dec.-Feb.	Parents of students in the school	School principal	To provide parents overview information about IGE in order to stimulate them to agree to the adoption of IGE and to make a commitment to IGE.

Figure 1.11: Proposed sequence of IGE staff development activities for local education agencies.

Implementation Phase	Activity	Approx. Time	Participant(s)	Presenter	General Activity Objective(s)
Changeover	Principal-Unit Leader workshop	Feb.-Apr. (Three and/or five days)	School principal and identified unit leaders	Implementation agency	To provide the principal and unit leaders with (1) instruction regarding and opportunity to apply knowledge of IGE concepts, skills, and practices and (2) the opportunity to develop plans for the first year.
	Staff planning meetings	Apr.-Aug.	School teachers, special area teachers, aides, and consultants	School IIC (principal and unit leaders) with assistance from implementation agency	To provide the school staff (1) general information regarding IGE and (2) the tentative plans developed for the first year.
	Pre-Opening of School Staff Development workshop	Options: Apr.-June (Six to ten half-days) June-Aug. (One week workshop) August (Three to five day workshop)	School teachers, special area teachers, aides, and consultants	School IIC (principal and unit leaders) with assistance from implementation agency	To provide the school staff (1) instruction regarding IGE concepts, skills, and practices and (2) the opportunity to develop plans for the first year.
	One half-day inservice	October	School staff members	School IIC (IIC establishes agenda)	To provide the school staff the opportunity to set goals for the school year and develop and implement plans.
	One half-day inservice	January	School staff	School IIC (IIC establishes agenda)	To provide the school staff the opportunity to further develop and implement plans.
	One half-day inservice	March	School staff	School IIC (IIC establishes agenda)	To provide the school staff the opportunity to evaluate their progress toward achieving their goals.
	One half-day inservice	May	School staff	School IIC (IIC establishes agenda)	To provide the school staff the opportunity to develop plans for the next school year.
Refinement	Continue four half-day inservices	(ongoing)	School staff	School IIC (IIC establishes agenda)	To provide the school staff with further (1) instruction regarding IGE concepts, skills, and practices and (2) opportunities to develop plans for refinement of their IGE operations.
	Network activities	(ongoing)	School staff representatives from RICC	School staff representatives from RICC	To strengthen the facilitative environment for assistance in the refinement of the participants' IGE operations.
	In-depth workshops	(ongoing)	School staff	Implementation agency or experienced IGE school personnel	To provide the school staff with further (1) instruction regarding IGE concepts, skills, and practices and (2) opportunities to develop plans for refinement of their IGE operations.
	Graduate courses	(ongoing)	School staff	Teacher education institution	To provide the school staff with further information regarding IGE concepts, skills, and practices for use in refining their IGE operations.

Figure 1.11 (continued)

When the principal and the prospective unit leader participate in college or university courses devoted to IGE, this replaces most of the awareness-commitment and planning activities. Undergraduates in education and experienced teachers enrolled in graduate programs have been exposed to the concepts of IGE and as a result they need less staff development activities themselves and are also a good intellectual resource for other teachers.

Finally, the staffs of existing IGE schools need to have the opportunity to become familiar with second-generation IGE and to improve their practices in the refinement and renewal stages of the implementation process (Krupa et al., 1976).

According to developers, successful implementation of IGE requires an extensive staff development program. Such a program must help staff learn (a) the seven components of IGE; (b) the differentiated staffing roles; (c) interpersonal skills; (d) sophisticated diagnosis techniques; and (e) prescriptive planning. Also during staff development programs, learning materials which are suitable for individualized teaching must be developed and an ongoing evaluation plan established. Through staff development programs, teachers should be able to develop and discuss ways of creating a healthy, safe, and positive environment which is essential to maximize learner outcomes. Finally, teachers must develop a continuing program of research to ensure the goal of constantly improving existing programs.

Significance of the Study

Staff development programs are seen by many as the vehicle by which educators can solve a labyrinth of problems facing education today. It is hoped that this study will contribute to the staff development literature and add to our existing knowledge of this process. This research will identify key variables in the staff development process that many warrant further study. Staff development programs and designs may be significantly altered in the future as a result of this research.

This study will offer suggestions to principals, inservice coordinators, teacher training institutions, and others who are responsible for these programs for improving staff development programs. Teachers and other practitioners who are the consumers of staff development activities will benefit from this study through the identification of their needs and preferences regarding staff development topics and strategies. New insights into how the staff development needs of teachers change over time during the implementation of an innovation will make these activities more meaningful for teachers.

The Studies of Implementation, a component of the Wisconsin R & D Center, will benefit from an increased understanding of the role of inservice in planned educational change. The results of the questionnaire will be made available to them in planning and implementation of staff development activities in the future.

Overview of the Study

Chapter I has introduced this study and provided background information. A statement of the research problem was presented and the pertinent literature was reviewed. Finally, the significance of this study was also included.

In the next chapter, the design and methodology of the study will be presented. In Chapter III the data will be described and analyzed. In the final chapter, Chapter IV, a summary of the study and the conclusions, and implications for practice and further research will be offered.

CHAPTER II

DESIGN OF THE STUDY

This chapter includes an overview of the methodology employed in this study. A description of the population and how the sample was selected is detailed. An explanation of the instrumentation including how the questionnaires and the interview were developed is included. A thorough description of the pilot study including the validity and reliability tests and their results is presented in this chapter. Both the data collection process and procedures are presented. This chapter concludes with a brief examination of some of the limitations of this study.

Methodology

This study employed a survey research or sample survey, i.e., the study of populations by studying samples chosen from the populations to discover the relative incidence, the distribution and interrelationships of sociological and psychological variables. Survey research is important and useful in the scientific study of social and educational problems (Kerlinger, 1973, p. 410). There are many types of survey methods for one to utilize and among them are the use of personal interviews and questionnaires which were employed in this study. According to Kerlinger (1973, p. 412), the

personal interview method, "far overshadows other methods as a powerful and useful tool in social scientific survey research." Since the personal interview technique is very time consuming and costly, this method is not always practical."

The mail questionnaire, another type of survey that has been popular in education, has some serious deficiencies unless utilized with other techniques. The possible lack of response and the inability to check the responses given are two of the major weaknesses of this type of survey method. Returns of less than 40 or 50 percent are very common in educational research, and little effort is generally put forth to discover the characteristics of the non-responders. Fleming (1974), in a comparison of early and late responders to a mailed questionnaire that garnered almost 100 percent of the sample, found that the characteristics of the first 30 responders and the last 30 out of a sample of over 200 to be quite different, specifically in their socioeconomic status and their attitudes.

Statement of the Hypothesis

The purpose of this study was to analyze the relationship of elementary school teachers' perceived staff development needs as they related to the length of time their school had been involved in the implementation of an innovation. To accomplish this purpose, data were gathered for the purpose of subjecting the following null

hypothesis to empirical test:

H_1 There is no relationship between the perceived staff development needs of teachers who individualize instruction and the phase (i.e., number of years) of the implementation process.

In light of the strength and weaknesses inherent in each of the various survey methods available, this study utilized a field study methodology employing both questionnaire and interview techniques of survey research. Field studies, in comparison to laboratory studies, are done in realistic settings, such as schools and classrooms where one or more independent variables are manipulated under as carefully controlled conditions as the situation will permit. Control of the experimental field situation is rarely as tight as that of the laboratory experimental situation, but the variables in a field experiment usually have a stronger effect than those of laboratory experiments. Field experiments are well suited both to the testing of theory and to the solution of practical problems. Field experiments are also well suited to testing broad hypotheses. Field studies are ex post facto scientific inquiries aimed at discovering the relations and interactions among educational variables in real situations. Although there are exploratory types of field studies, this study is hypothesis-testing, where preliminary methodological and measurement investigation must be done. In this study, extensive pilot tests were conducted on the instruments used. Then, each school in the sample was visited, the questionnaires were uniformly administered, the follow-up interviews were conducted.

Population and Sample

This research study was a part of the larger Studies of Implementation, a research component of the Wisconsin Research and Development Center for Individualized Schooling. This research attempted to enlist the cooperation of the 11 Wisconsin sites that have been involved with the Studies of Implementation on a 3-year longitudinal study examining the implementation of an innovation over a period of time. The Studies of Implementation group is presently completing its second year of data collecting.

The Studies of Implementation in "Foundations of the Studies of Implementation: The Innovation and Research Sites" (Davis, Klenke, & Barrows, 1979, p. 63), Technical Report No. 494 of the Wisconsin Research and Development Center for Individualized Schooling, identified 136 elementary schools in the state of Wisconsin that were members of the state Individually Guided Education (IGE) network. This population of 136 schools was stratified by a number of criteria; the number of years a school claimed to be an IGE school, location in an urban (Milwaukee) or nonurban area, and use of the Wisconsin Design for Reading Skill Development (WDRSD) and/or Developing Mathematical Processes (DMP) curricular products. Potential research sites were randomly selected from these strata with the exception of one nonurban school that had just made the decision to implement IGE.

Eleven Wisconsin elementary schools were solicited and agreed to participate in the Studies of Implementation research project focusing in on the process of implementing planned change in education. Table 2.1 summarizes the desired characteristics of the 11 Wisconsin research sites, longevity as IGE schools, and size of the schools. All 11 schools had been involved with the Studies of Implementation for one year in data collection regarding the process of implementing planned change in education, the innovation being IPM in this case. Mercury School was not asked to participate in this study due to its already heavy commitment in another research study that was also a part of the Studies of Implementation.

All of the other ten schools were approached in person to participate in this study. A written description of the study and the demands on teacher and principal time were presented to each principal in all ten sites (see Appendix A). Only one school (North School) chose not to participate because it was going to be closed due to declining enrollments. The other nine schools agreed to participate. A follow-up telephone call to each of the principals in the nine schools confirmed participation on the part of their staff members and a date was set for the next month to administer the questionnaires and to conduct the follow-up interviews.

Instrumentation

The instrumentation consists of two packages, one for teachers and one for principals. The instrument package used with

Table 2.1

The Research Sites: The Characteristics and Code Numbers Of Sites Obtained, Their Longevity as IGE Schools, and Their Size

Name and Character-istics of Obtained Sites	Years in IGE	Student Enrollment	Classroom Teachers	Number of Support Staff	Number of Paid Aides
Lewis (Nonurban)	1	437	18	12	4
Star (Urban)	1	525	20	13	21
Arrow (Nonurban)	2	315	13	8	4.5
Mercury (Urban) (using DMP)	4	468	18	4.8	11
Meadow (Nonurban)	6	97	5	9	2
Sawyer (Nonurban) (using WDRSD only)	7	350	13	1.4	2
Rise (Nonurban) (using both DMP & WDRSD)	7	395	14.5	3.8	2.5
North (Nonurban) (using DMP) only)	7	285	12	6	2
Davis (Nonurban)	7	465	17	6	4
York (Urban)	4	500	15	3.8	10
London (Urban)	2	480	23	9	9

teachers consists of two questionnaires developed by Lehr (Note 1) based on the work of Davis (1978) and modified for this study to be appropriate to elementary schools. The first part of the instrument (see Appendix B) is the Experience-Need Inventory that provides a form for assessing a participant's purported levels of experience regarding a number of possible inservice or staff development program topics as well as their perceived needs in these areas. The second part, the Design for Staff Development Preference Inventory, questions respondents about several areas relevant to the design of the staff development/inservice program. These instruments were designed originally by staff of the University Council for Educational Administration with funding from the United States Office of Education. The combined effort of these two agencies was directed toward the establishment of strategies and guidelines to encourage the professional development of urban and Title I principals. The items that make up the questionnaire were extracted from a review of the literature and a set of interviews with leaders in education. A variety of educational researchers, staff development experts, and numerous practitioners was involved in this developmental effort. An impartial board of references judged the final drafts of the instruments to have content validity (Davis, 1978). It was assumed that there is face validity in the instruments. According to Davis (1978), "Although both instruments were originally constructed to support administrative staff develop-

ment efforts, only cosmetic changes are required to render the instruments applicable to other client groups" (p. 3).

Modifications were made in the Davis instrument by Lehr that were appropriate for the target group in that study, i.e., teachers in IGE middle schools. The changes that were made included the following: identifying the topics that were appropriate for teachers involved in individualizing schooling; inserting "teachers" for "principals"; and deleting inappropriate items.

This study made modifications in the instrument that Davis developed and Lehr adapted to middle and junior high teachers. The adapted Experience-Need Inventory consists of ten topics for staff development activities that were identified by practitioners who had been extensively involved with individualized schooling. Various topics, such as motivational techniques, team planning, mainstreaming, and evaluation were addressed. Participants were asked to indicate their level of experience by checking one of four response categories based on Likert-type responses--"Expertise," "Some Experience," "Some Knowledge," and "No Knowledge." This Likert-type scale provides an idea of the breadth and depth with which the topic should be introduced. It also identifies people who can serve as resource persons in planning, organizing, or conducting inservice. Participants were also asked to indicate their level of "need" in each topic by checking one of the four response categories: "Very Strong," "Strong," "Moderate," "None." The term "interest" was changed to "need" after discussions with Lehr. The terms

"staff development" and "inservice" were used synonymously in this study because the term "inservice" had a negative connotation to many practitioners and others did not know what the term "staff development" meant or at least were unsure of its definition.

Teachers were also asked to supply background data regarding their age, number of years of teaching, past staff development experiences, and other related educational experiences. Kerlinger said that, "Such information is indispensable, since it is used in studying the relations among variables and in checking the adequacy of samples" (1973, p. 412).

An open-ended interview consisting of three questions was utilized in this study in a follow-up interview with all members of an I & R unit in each school (see Appendix C). The interview format was designed to verify the information given by the respondents on the questionnaire as well as to probe the intentions of the interviewee regarding the questionnaire. The interview was also designed to define terminology and to identify any issues that might have affected the way staff felt about staff development and inservice.

Principal's Instrument Package

The instrument package used with the principals of IGE elementary schools consists of a questionnaire (see Appendix D) similar to that used with teachers. The first part, the Staff Needs Inventory, developed by Lehr and modified for this study, asks prin-

cipals to respond to the same topics as their teachers, but from the perspective of "What do you perceive to be inservice/ professional development needs of teachers on your staff?" Principals marked responses of "All," "Most," "Some," or "None" on a Likert-type scale.

The second part of the survey for principals' concerns Implementing Inservice/Staff Development Programs. This part was designed to have principals identify those factors that may hinder the successful implementation of staff development programs. This instrument could be viewed in terms of asking one question: "What factors impede your ability to provide an effective staff development program to the teachers in your building?" This questionnaire was developed by Davis and Podemski under the sponsorship of the University Council for Educational Administration as a part of the Staff Development Models project. The instrument was structured by Lehr based on discussions with local principals, district staff development coordinators, and members of her dissertation committee. This study made minor revisions in the Lehr instrument to make it applicable to elementary teachers and principals in the state of Wisconsin who are implementing the Instructional Programming Model.

Validity

Great care was taken to ensure the ten topics that served as the nucleus for the two instrument packages were valid. The list of 22 staff development topics developed by Lehr and designed

for middle school and junior high teachers was administered to a panel of 10 experts.

This panel composed of the principal and four unit leaders from Spartanburg Elementary School, a model IGE elementary school, and five staff members from the Wisconsin R & D Center. All ten members of the panel were knowledgeable of elementary IGE school programs and had many years of combined service acting as consultants, conducting workshops, and evaluating elementary IGE school programs.

All 10 experts were asked to rank the 22 staff development topics from 1 to 10 (see Appendix E). The 22 topics were weighted by the sum of their total ranking. Any topic not ranked by 1 or more members of the panel was given an additional 22 points to ensure that a low score would indicate a high ranking and conversely a high score indicated a low ranking. As shown in Table 2.2, the panel of 10 experts ranked each of the 22 topics from 1 to 10, their total scores were computed, and the top 10 topics were ranked. All extraneous comments were recorded as shown in Appendix F and were evaluated in terms of additional staff development topics. Additional staff development topics suggested by the experts included: "working effectively with student teachers and interns," "helping the mainstreamed child in your classroom," "dealing with teachers' personal needs, i.e., stress," and "gifted and talented programs."

The original 22 staff development topics were administered a second time to 21 elementary teachers in Washington Elementary School that was implementing the Instructional Programming Model

Table 2.2

Ranking of Twenty-Two Staff Development Topics by Panel of Experts

	Spartanburg Staff					Wisconsin R&D Staff						
Topics	1	2	3	4	5	6	7	8	9	10	Total	Ranking
1	22	9	22	16	22	1	7	22	22	19	162	14
2	22	10	22	1	5	22	15	9	22	7	135	10
3	22	2	1	5	4	22	14	2	22	6	100	6
4	22	4	2	4	8	22	2	3	1	1	69	2
5	22	5	5	3	3	22	12	1	3	13	89	4
6	22	14	22	14	6	22	13	11	4	22	150	13
7	22	8	22	13	10	2	19	10	2	14	122	9
8	22	1	6	2	1	3	3	8	5	8	59	1
9	22	21	22	9	22	22	22	22	14	20	196	22
10	22	20	22	10	22	22	22	17	15	21	193	21
11	22	17	3	6	7	6	6	12	16	3	98	5
12	22	6	4	11	2	22	7	13	13	2	102	7
13	22	22	22	12	22	22	22	22	10	15	191	20
14	22	7	9	7	22	7	4	5	6	17	106	8
15	22	3	10	8	9	4	8	4	7	11	89	3
16	22	19	8	15	22	22	9	6	8	9	140	11
17	22	11	22	22	22	8	16	7	9	4	143	12
18	22	13	7	21	22	22	20	19	22	5	173	17
19	22	15	22	19	22	22	10	16	11	12	171	16
20	22	16	22	18	22	22	11	18	12	16	179	18
21	22	12	22	20	22	9	17	15	17	10	166	15
22	22	18	22	17	22	22	18	14	18	18	191	19

(see Appendix G). As shown in Table 2.3, they ranked the topics from 1 to 22. Again, each topic was given a raw score that reflected how it was ranked by the 21 teachers. A low score indicated a high ranking and a high score indicated that the topic was ranked low. As with the panel of 10 experts, the comments listed by the 21 teachers were recorded (see Appendix H) and these comments were categorized into additional staff development topics.

The rankings of the original 22 staff development topics by the panel of experts and the 21 teachers at Washington School are shown in Table 2.4. All three groups agreed on 11 of the staff development topics (see Table 2.5). Four additional topics were suggested by the responders to be added to the list. These additions made a total of 15 staff development topics (see Appendix I).

This list of 15 staff development topics was then analyzed by the research team members involved in the Studies of Implementation. Minor changes were made in the wording on some of the topics in order to clarify their meaning. This revised list of 15 staff development topics (see Appendix J) was then administered to 22 graduate students in educational administration. Nine of the 22 respondents were enrolled in a class on supervision of instruction and the other 13 respondents were taking a class on organizational theory and behavior. All 22 respondents were educators presently employed in some area of the educational field. As

Table 2.3

Staff Development Topics

	Responses																				
Topics	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1		15	19	-	-	-	-		10	11	16	19	9	19	21	17	18	21	-	19	1
2		14	18		-	-	-		17	3	17	16	19	14	20	18	1	20	5	11	8
3	4	18	9	10	9	2	-	10	19	5	15	1	10	2	10	9	15	11	15	8	7
4		17	8	-	-	-	-	-	18	4	19	15	11	6	22	8	14	22	14	18	6
5	2	1	4		8	4	2		16	1	1	2	12	1	19	7	9	8	12	4	5
6		NA	7			6	5		20	21	18		13	12	17	12	3	19	8	3	19
7		16	16	7		5	-	9	9	22	12	17	15	21	18	19	22	18	19	17	18
8		7	2	2	6	3	1	2	1	6	2	3	14	3	5	3	10	7	9	2	4
9	1	NA	6			-	-		22	8	-	20	-	18	14	-	16	15	-	21	21
10		NA	3	9		-	-	8	8	10	-	21	-	17	15	-	13	16	-	22	20
11	10	2	12		7	-	-		2	9	4	4	3	5	4	1	2	2	7	7	2
12	11	8	1	1	1		4	1	3	2	3	5	2	7	1	4	8	1	3	6	3
13	12	9	17				9		5	7	5	12	-	20	16	16	17	17	13	16	9
14		12	5	4	2	7	8	3	4	18	13	6	1	4	8	5	4	9	10	1	11
15	9	4	15	5	6	8	6	6	6	17	11	7	8	10	6	6	6	6	6	15	13
16	5	5	14	3	3	1	7	4	7	16	7	8	5	8	3	10	7	5	4	12	12
17	3	6	21		5	-	-		15	15	14	9	4	13	11	11	12	12	18	13	17
18		NA	20	-		-	-	-	21	19	20	18	18	22	13	-	19	14	-	20	22
19	8	10	10	6	9		-	5	13	14	9	10	16	16	7	13	20	4	16	9	15
20	7	11	11	8		-	-	7	11	13	8	11	17	15	12	15	5	13	11	10	14
21	6	3	22		4		3		12	12	6	13	6	9	2	14	11	3	2	14	10
22		13	13	-	10	-	-	-	14	20	10	14	7	11	9	20	21	10	17	5	16
Comments																					

Washington Elementary = 38 teachers, 21 responses (Sept. 26-28, 1979)
4 teaching teams

Table 2.4

Washington Staff Development Topics

Topics	Gross Score	Rank	Topic #
1	369	1	12
2	333	2	7
3	211	3	16
4	334	4	14
5	162	5	5
6	315	6	11
7	346	7	15
8	114	8	3
9	382	9	21
10	360	10	19
11	171	11	20
12	97	12	17
13	310		
14	157		
15	176		
16	146		
17	287		
18	424		
19	254		
20	265		
21	218		
22	320		

Table 2.5

Staff Development Topics Ranked

Topics	Spartanburg	R & D	Washington	Consensus
1	14			
2	10			3
3	6		8	
4	2	2		4
5	4	8	5	5
6	13			
7	9	7	2	7
8	1	1		8
9	22			
10	21			
11	5	5	6	11
12	5	10	1	12
13				
14	9	4	4	14
15	7	3	7	15
16		9	3	16
17		6	12	17
18				
19			10	
20			11	
21			9	
22				

shown in Table 2.6, they ranked the 15 staff development topics and a composite list ranked from high to low was made based on the same system by weighting each topic according to the total score. Again, a high score indicated a low ranking and a low score indicated a high ranking. There were no additional staff development topics offered by this group of 22 respondents. It was decided to delete topic number 12, "ways of working more effectively with student teachers and interns" because it was ranked 15 and was originally added to the list because it was a concern in one of the pilot schools by one of the units leaders (see comments in Appendix F). The other 14 staff development topics were then put in a new random order as seen in Appendix K. This new list of 14 topics was then placed into both the teachers' and principals' instrument packages.

To determine the content and construct validity of both the principals' and teachers' instrument packages, a group of 94 seniors majoring in education at the University of Wisconsin-Madison and presently either interning or practice teaching were asked to fill out both forms. At the same time, a group of 25 experienced teachers enrolled in a graduate level class in research methods in the Department of Educational Administration at the University of Wisconsin-Madison were also asked to fill out the teachers' instrument package. The other half of the class, 25 practicing administrators or graduate students aspiring to be administrators, were asked to fill out the principals' instrument package (see Table 2.7).

Table 2.6

Pilot Test for Validity:
Twenty-Two Experienced Educators

	Topics														
Responders	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	2	4	3	6	5	10				7			8	1	9
2	1	12	6	11	5	14	9	2	4	3	15	13	7	10	8
3	1	6	2		5						8	9	3	4	10
4	1	9	2	3	8	6				10			4	5	7
5	6	3	7	11	8	14	4	2	9	12	10	13	1	5	1
6	1	2	1	10	1	3	5	9	9	1	1	2	1	1	3
7	1	5	2	6	7	4	2	1	4	3	5	4	8	3	6
8	9	10	1	8	7	2	13	14	12	3	6		5	11	4
9	8	7			10	6	9		1	4	5		2		3
10	5	1	1	3	6	1	3	1	4	4	3	6	5	1	1
11	1		2		3	4	5	9							
12	1		3		2	5	8	4		6	7		10	9	
13	5	13	4	10	12	2	3	6	14	8	15	7	11	1	9
14	6	5	4	7	11	8	12	14	9	1	10	13	15	3	2
15	2	10	6	1	9	15	7	14	13	11	12	8	3	4	5
16	2		1	8	3	4		7		5	9	10	6		
17	2		1	3	5		6	8	4	7				9	10
18		5	4	6		7	3		10	1			8	9	2
19	2	10	1	4		5	6		9			8	3		7
20	2	3	1	9	4	5	10		6				7		8
21	3	2	1	8		9		10	4			5		6	7
22	1	4	1	4	3	2	5	7	5	5	8	9	3	5	3
Raw Score	76	167	68	173	156	154	180	220	194	161	226	233	152	157	147
Rank	2	9	1	10	6	5	11	13	12	8	14	15	4	7	3

Table 2.7

First Pilot Test for Validity of Staff Development Topics for Teachers

Topic Variables*	Group**	Number of Cases	Mean	Pooled Variance Estimate T-Value	Degrees of Freedom	2-Tail Problem	Separate Variance Estimate T-Value	Degrees of Freedom	2-Tail Problem
1	1	20	2.95	-1.10	28	.283	-1.20	23.10	.242
	2	10	3.30						
2	1	20	2.55	.89	28	.378	.80	13.85	.436
	2	10	2.20						
3	1	20	2.35	.71	28	.486	.64	14.08	.535
	2	10	2.10						
4	1	20	2.45	.88	28	.389	.81	14.79	.432
	2	10	2.10						
5	1	20	2.70	- .55	28	.590	- .50	14.75	.623
	2	10	2.90						
6	1	20	3.30	-1.01	28	.323	-1.05	20.51	.304
	2	10	3.60						
7	1	20	2.50	1.03	28	.310	1.04	18.20	.314
	2	10	2.10						
8	1	20	2.90	1.39	28	.176	1.36	17.19	.191
	2	10	2.40						
9	1	20	2.50	- .28	28	.780	- .27	16.80	.787
	2	10	2.60						
10	1	20	2.85	.96	28	.348	.89	15.11	.388
	2	10	2.50						
11	1	20	2.70	.68	28	.504	.64	15.78	.530
	2	10	2.40						
12	1	20	2.65	1.43	28	.163	1.29	13.98	.218
	2	10	2.10						
13	1	20	2.75	.69	28	.494	.64	14.78	.532
	2	10	2.50						
14	1	20	2.25	1.33	28	.194	1.30	16.90	.212
	2	10	1.80						

*See Appendix K for a complete listing of the topics.

**1 = experienced teacher
2 = beginning teacher

A second pilot test for validity was conducted on the 12 staff development topics after 2 of the topics were deleted because of wordiness. Twenty experienced teachers in an IGE elementary (Milltown) school were administered the 12 topics 2 times, 1 week apart (see Appendix L). Their pre-test results were compared to the responses of a group of 22 junior students in education at the University of Wisconsin-Eau Claire who were enrolled in a course on IGE. A comparison of beginning teachers and experienced teachers using a two-tailed T-test showed that the staff development needs as perceived by beginning teachers was significantly different from those who had been teaching for some time (see Table 2.8). Topics 9 and 11 were deleted and the other 10 staff development topics were utilized with both instrument packages.

Reliability

The test-retest method for reliability was used for both the teachers' and the principals' instrument packages. Approximately 50 experienced educators representing various areas of education were asked to fill out the teachers' and principals' instrument packages one week apart. This group of experienced educators was participating in a graduate level class in research methods at the University of Wisconsin-Madison campus during the fall semester of 1979-80. The class was divided in half and those who were presently teaching or had previously taught were given the teacher's form to fill out. Those who were presently principals or administrators

Table 2.8

Second Pilot Test for Validity on the Twelve Staff Development Topics of Elementary Teachers

Topic Variables*	Group**	Number of Cases	Mean	Pooled Variance Estimate T-Value	Degrees of Freedom	2-Tail Problem	Separate Variance Estimate T-Value	Degrees of Freedom	2-Tail Problem
1	1	20	2.700	-3.97	40	.000	-3.89	31.45	.000
	2	22	3.6364						
2	1	20	2.9500	- .44	40	.664	- .43	37.72	.666
	2	22	3.0455						
3	1	20	2.5500	-3.72	40	.001	-3.69	37.84	.001
	2	22	3.3636						
4	1	20	3.0000	- .37	40	.716	- .37	39.76	.716
	2	22	3.0909						
5	1	20	3.2500	-3.91	40	.000	-3.81	28.91	.001
	2	22	3.8636						
6	1	20	2.8000	-2.37	40	.023	-2.35	37.34	.024
	2	22	3.3182						
7	1	20	2.6500	-4.12	40	.000	-4.09	38.23	.000
	2	22	3.4545						
8	1	20	2.5500	-2.32	40	.025	-2.34	39.81	.024
	2	22	3.0909						
9	1	20	2.5000	-3.94	40	.000	-3.90	36.52	.000
	2	22	3.4091						
10	1	20	2.5000	-3.76	40	.001	-3.75	39.19	.001
	2	22	3.3636						
11	1	20	2.4000	-3.33	40	.002	-3.39	37.55	.002
	2	22	3.0455						
12	1	20	1.7000	-2.91	40	.006	-2.89	38.13	.006
	2	22	2.3182						

*See Appendix L for a complete list of the 12 topics.

**1 = experienced teacher
2 = beginning teacher

or studying to be one were asked to fill out the principal's form. The questionnaires were uniformly administered one week apart. Using the Pearson-Product Moment Correlation Coefficient to test reliability, the 14 topics had scores ranging from a high of .7756 to a low of .4662 (see Table 2.9). It was decided to delete topic number 7 and topic number 9 because of their low reliability score and because they reflected more than one concept in their wording.

A second pilot study using 20 staff members of an IGE elementary school produced Pearson-Product Moment Correlation Coefficients ranging from a high of .9705 to a low of .6551 (see Table 2.10). There were only two topics ranked below .7559 and it was decided to delete these items from the list, which left ten staff development topics for teachers and principals to react to.

Data Collection Procedures

After visiting all 11 schools, 9 schools had agreed to participate in this study. Follow-up telephone calls to the reamining nine schools confirmed their participation in the study and a date was set to administer the questionnaires and to conduct the interviews. Visits to all nine schools were scheduled within a three-week time frame.

Each of the participating schools was visited and the questionnaires were uniformly administered to the teachers in the

Table 2.9

Pilot Study on the Staff Development Needs of Teachers: Reliability

Pearson-Product Moment Correlation Coefficient: Test-Retest		
Topics*	Correlation Coefficients	Rank
1	.7756	1
2	.6990	7
3	.6134	10
4	.7192	5
5	.5638	12
6	.7361	4
7	.5266	13
8	.6650	8
9	.4662	14
10	.7436	3
11	.7160	6
12	.5884	11
13	.6541	9
14	.7701	2

*See Appendix K for a complete listing of the topics.

Table 2.10

Second Pilot Study on the Staff Development Needs of Teachers: Reliability Milltown Teachers

Pearson-Product Moment Correlation Coefficent: Test-Retest		
Topics*	Correlation Coefficients	Rank
1	.9705	1
2	.8709	7
3	.8440	8
4	.9129	3
5	.8916	5
6	.8384	9
7	.9443	2
8	.7559	10
9	.6551	12
10	.8819	6
11	.6713	11
12	.8966	4

*See Appendix L for a complete list of the 12 topics.

morning before school started. All members of the teaching staff and principals were asked to fill out the questionnaires. Most teachers completed the questionnaires within 30 minutes. All teachers and principals who had not filled out an "Informed Consent Form" (see Appendix M) required by the federal government, were asked to do so. Arrow and London schools filled out the questionnaire at the end of the day, after children had been sent home. The principals at Sawyer and Davis schools did not complete their surveys that day and mailed them to the researcher within a few days.

After the questionnaires were completed, a follow-up, open-ended interview was conducted with the unit leader and all members of a selected I & R unit in each school. These follow-up interviews enabled the researcher to clarify any misinformation, seek new information, and to verify what had already been stated on the questionnaires.

Data Analysis

The surrogate variable of time was used in this study as defined by Davis et al. (1979) in Technical Report No. 494. Two schools were identifed as being in the first year of implementation phase. There were three schools in the two- to four-year phase of implementation, and five schools were identified as being in the fifth year or over phase of the implementation process.

The data from this research study have been analyzed utilizing a variety of statistical procedures. Frequency counts and percentage scores have been used for the response categories of each topic for both the staff development needs and preferred strategies of teachers. Topics were ranked in order of teachers' perceived need with the mean response identified. Mean scores and standard deviations of all respondents regarding all topics were also reported here. Descriptive statistics have been used to identify the demographic data of respondents. Data gathered from the interviews have been used to clarify and add to the questionnaire results.

Limitations of the Study

This study was limited to nine elementary schools in the state of Wisconsin that were implementing an alternative program of individualized schooling known as Individually Guided Education (IGE). Although the results of this study should not be generalized beyond this population, this sample of 9 elementary schools was a purposive random sampling of 136 IGE elementary schools in the state of Wisconsin. Eight of the nine schools were randomly chosen from a stratified group of schools based on a number of criteria including number of years in IGE, use of curricular products, and geographical location. The one exception was Lewis School, that was just beginning to implement the Instructional Programming Model and, therefore,

was considered a worthy choice because of the unique opportunity to study the beginnings of the implementation process.

A second limitation of this type of study is that the instruments solicit respondents' perceptions of their staff development needs and preferred strategies on a Likert-type scale. Although the perceptions of two or more persons may be identical on any given item, their responses may vary for various reasons. Numerical coding of preferential responses is a common weakness in survey research. Forced choice items on questionnaires tend to miss some of the options preferred by respondents and are another limitation in the survey research methodology. Follow-up interviews were an attempt to overcome some of these limitations by validating perceptions of respondents with those of the interviewer. Open-ended response categories were provided to balance forced choice items and the total number of responses was grouped into categories and coded.

Finally, the data gathered through the interview process may reflect misinterpretation and miscommunication on the part of both the interviewer and the respondent. Individual perceptions of a given concept may indeed conjure up significantly different impressions. Although the interview schedule was designed to be open-ended, a sincere effort was made to probe for definitions and meanings of abstract concepts such as terms "inservice" and "staff development." When respondents raised issues or alluded to incidents that were not fully comprehensible to the interviewer, efforts were

made to probe for a clearer understanding.

This chapter included a design of the study, a description of the methodology, the population, and the sample as well as the instrumentation. The results of validity and reliability testing were also presented. The procedures for data gathering were reported along with the data analysis process. Some of the limitations of this study and the efforts to overcome these deficiencies inherent in this type of study completed this chapter.

Chapter III will include five sections. Section one will present demographic profiles of the teachers who participated in the study. Section two will present the data obtained from both questionnaires and interviews with teachers and principals relating to topical needs for staff development activities. Section three presents the data obtained from teachers relevant to preferred strategies of an inservice program. Section four deals with functional and dysfunctional aspects of providing effective staff development programs, and the final section presents an analysis of the staff development needs and preferred strategies of teachers in relation to the number of years they have been implementing IGE.

CHAPTER III

PRESENTATION AND ANALYSIS OF THE DATA

This chapter is composed of six sections. Section one presents the demographic profiles of the teachers who participated in this study. Section two reports the data obtained from both questionnaires and the interviews with the teachers and the principals relating to the topical experiences and needs for staff development activities. The third section provides the data from teachers relevant to their preferred strategies on an inservice program. The fourth section presents an analysis of the staff development needs and preferred strategies of teachers as they relate to the length of time they had been involved in the implementation of IGE. Section five provides information from the principal's survey and section six presents miscellaneous information from the interviews with teachers.

Statement of the Hypothesis

The purpose of this study was to analyze the relationship of elementary school teachers' perceived staff development needs as they related to the length of time their school had been involved in the implementation of an innovation. To accomplish this purpose, data were gathered for the purpose of subjecting the following null hypothesis to empirical test:

H_1 There is no relationship between the perceived staff development needs of teachers who individualize instruction and the phase (i.e., number of years) of the implementation process.

Demographic Profile of Respondents

The population of this study included elementary school teachers and principals from schools associated with the Wisconsin IGE network. From this population of 136 schools was chosen a stratified random sample of 11 elementary schools that were implementing the Instructional Programming Model (IPM), the essence of IGE. Of these 11 Wisconsin Elementary schools, 9 agreed to participate in the Studies of Implementation Research project on the staff development needs of teachers. Of the 205 teachers in the total sample (see Table 3.1), 174 participated in filling out the questionnaire giving a response rate of 84.8%. The 31 teachers who did not fill out the survey were mostly part-time staff or assigned to that building at a time other than when the survey was administered. A few teachers did not fill out the questionnaire because they were ill on the day it was administered or else they chose not to due to other obligations such as a parent conference or a staffing on a child. Of the 174 teachers who filled out they survey, 41 of them were interviewed which is 23.5% of the teachers who filled out the questionnaire. One teacher chose not to participate.

Table 3.1

Total Number of Full- and Part-Time Teachers in Each School

School Number & Name	Number Teachers	Number Respondents	Number Interviewed
01 - Lewis	31	31	6
02 - Star	37	32	4
03 - Arrow	21	19	5
04 - Mercury	--	--	-
05 - Meadow	6	6	4
06 - Sawyer	15	15	5
07 - Rise	24	14	6
08 - North	--	--	-
09 - Davis	23	19	4
10 - York	21	15	3
11 - London	27	23	4
Totals	205	174	41

Table 3.2 presents a demographic description of the teacher respondents. All of the principals in the nine schools also participated in the study by filling out a questionnaire.

Almost two-thirds of the teachers surveyed reported that they had been teaching for ten years or less. About 40% indicated that they had been teaching for two years or less. Over half of the teachers surveyed had attained the minimum level of academic certification, i.e., the bachelor's degree but had not earned any college credits beyond this level. Two-thirds of the teachers said that they were involved in team teaching and the other one-third said that they were not, although all nine schools were IGE schools. One-fourth of the teachers said that they adapted some of the instruction in their classes for the individual needs of their students and over half said that they made adequate adaptation of instruction. Of the 174 teachers surveyed, 57% were unit teachers, 14% were unit leaders, and 20% were involved in the remediation of instruction.

Topical Needs for Staff Development Activities

One of the major purposes of this study was to identify the staff development topical needs of teachers involved in individualizing instruction. This section presents the findings dealing with the topical areas associated with the staff development needs and prior experiences of elementary teachers who were engaged in individualizing schooling.

Table 3.2

Demographic Profile of Respondents

Items	Frequency	Percent
Total number of years of teaching experience		
0- 5	50	28.7
6-10	61	35.1
11-15	23	13.2
16-20	14	8.0
21-25	15	8.6
26-30	7	4.0
31 and over	4	2.3
Total number of years at your present school		
0- 1	24	13.8
1- 2	43	24.7
3- 5	47	27.0
6-10	30	17.2
11-15	14	8.0
16-20	12	6.9
21-28	4	2.3
Level of academic attainment		
Bachelor's degree	93	53.4
Bachelor's degree + 30	27	15.5
Master's degree	40	22.9
Master's degree + 30	11	6.3
Doctoral degree	1	5
Involvement in team teaching		
Yes	116	66.7
No	56	32.2
Would you describe instruction in your classes as:		
No adaptation	0	0
Some adaptation	42	24.1
Adequate adaptation	102	58.6
Optimal adaptation	25	14.4
Area of major teaching responsibility		
Unit leader	24	13.8
Unit teacher	99	56.9
MAPE (music, art, physical educ., IMC)	15	8.6
Pupil services (counselor, nuse, social worker, psychologist)	6	3.4
Special education	15	8.6
Other (specify)_____	14	8.0

N=174

Teacher inservice experiences in ten topical areas were assessed first. As shown in Table 3.3, teachers responded to ten staff development topical areas on a Likert-type scale from "no knowledge" to "expertise."

The means for each topic were computed and rank ordered. Teachers were most experienced in the following areas: choosing learning materials for students, techniques for motivating students, procedures for recording student achievement, skills in writing learning objectives, and strategies to deal with students' affective development. Teachers indicated they were the least experienced in ways of teaching gifted and talented, strategies to help teachers deal with their personal needs, e.g., stress, opportunities to help teachers mainstream children with exceptional educational needs, methods to improve skills in evaluating students, and ways to improve the team planning process.

Teachers were also asked to respond to the same ten staff development topics regarding their perceived needs on a Likert-type scale from "none" to "very strong." As shown in Table 3.4,each category is presented for each topic. Means were computed and then rank ordered to illustrate the hierarchy of need. Respondents indicated their level of need and the topics with the highest mean ratings included techniques for motivating students, strategies to deal with students' affective development, ways of teaching gifted and talented students, choosing learning materials for students, and methods to improve skills in evaluating students. Respondents

Table 3.3

Teachers' Experience Levels for Inservice Topics

Topics*	Experience Levels: No Knowledge	Some Knowledge	Some Experience	Expertise	Mean	Rank
1. mainstreaming	8	70	84	10	2.53	8
2. team planning	6	66	88	12	2.58	6
3. recording achievement	2	46	107	15	2.73	3
4. personal needs of teachers	27	78	53	12	2.24	9
5. motivating students	2	29	116	24	2.90	2
6. learning materials	1	23	129	18	2.91	1
7. gifted and talented	23	88	54	6	2.21	10
8. evaluating students	5	59	97	8	2.56	7
9. affective development	5	61	92	12	2.59	5
10. learning objectives	3	50	99	18	2.71	4

N = 174

*Topics are abbreviated. See Appendix I for complete titles.

Table 3.4

Teachers' Need Levels for Inservice Topics

Topics*	Need Levels				Mean	Rank
	None	Moderate	Strong	Very Strong		
1. mainstreaming	13	62	66	24	2.48	8
2. team planning	12	57	70	25	2.51	7
3. recording achievement	15	67	62	18	2.34	9
4. personal needs of teachers	9	59	59	37	2.60	6
5. motivating students	1	33	81	48	2.88	1
6. learning materials	4	59	70	31	2.62	4
7. gifted and talented	14	45	67	39	2.65	3
8. evaluating students	8	58	70	30	2.61	5
9. affective development	5	54	70	35	2.66	2
10. learning objectives	35	73	47	8	2.03	10

N = 174

*Topics are abbreviated. See Appendix I for complete titles.

indicated a moderate or lower need in the following areas: skills in writing learning objectives, procedures for recording student achievement, opportunities to help teachers mainstream children with exceptional educational needs, ways to improve the team planning process, and strategies to help teachers deal with their personal needs, e.g., stress.

Principals in each of the nine schools involved in this study were asked to respond to the same ten topics that their teachers did. Each school principal was asked in their questionnaire to "please indicate what you perceive to be the inservice/staff development needs of teachers on your staff for the following ten topical areas." As shown in Table 3.5, principals responded to each topical area on a Likert-type scale from "no teachers need inservice on this topic" to "all teachers need inservice on this topic." Table 3.5 also shows the means of the ten topics rank ordered by the principals in how they perceived the staff development needs of their staff. Principals reported that teachers held the greatest need in the areas of ways of teaching gifted and talented students, ways to improve the team planning process, skills in writing learning objectives, methods to improve skills in evaluating students, and strategies to deal with students' affective development. Those topics perceived as the least important for principals were procedures for recording student achievement, choosing learning materials for students, techniques for motivating

Table 3.5

Principals' Perceptions of Teachers' Staff Development Needs

Topics*	No	Some	Most	All	Mean	Rank
1. mainstreaming	1	4	3	1	2.44	6
2. team planning	0	5	3	1	2.56	2-3
3. recording achievement	2	5	2	0	2.00	10
4. personal needs of teachers	0	6	3	0	2.33	7
5. motivating students	0	7	2	0	2.22	8
6. learning materials	1	6	2	0	2.11	9
7. gifted and talented	0	2	5	2	3.00	1
8. evaluating students	0	4	5	0	2.56	4-5
9. affective development	0	4	5	0	2.56	4-5
10. learning objectives	0	5	3	1	2.56	2-3

N = 9

*Topics are abbreviated. See Appendix I for complete titles.

students, strategies to help teachers deal with their personal needs, e.g., stress, and opportunities to help teachers mainstream children with exceptional educational needs.

In addition to the ten topics listed, both teachers and principals were asked to list "other needed inservice staff development workshop topics." Topics listed by teachers included: involving parents in the learning process, home-school-community relations, communication and cooperation among team members and among units in the building, human relations, and coordinating curriculum among units. Principals listed such suggested topics as improving instruction, teaching techniques, time management, interpersonal communication, and positive attitudes toward the handicapped.

Teachers were asked to indicate on the survey the one topic that they would recommend to someone else as being most beneficial to them in their efforts to improve instruction (see Table 3.6). Over one-third of those who responded indicated topic number 5, "techniques for motivating students," as the most essential staff development topic. Some of the teachers who were interviewed expressed their interest in this topic by stating, "If students aren't motivated to learn, there is not an awful lot more that we can do with them." The second choice was "strategies to deal with students' affective development," and the third most popular topic was "ways to improve the team planning process."

Table 3.6

Teachers' Perceptions of Most Beneficial Topic for Improving Instruction

Topics*	Frequency	Percent	Rank
1. mainstreaming	12	6.9	7
2. team planning	18	10.4	3
3. recording achievement	1	.6	10
4. personal needs of teachers	13	7.5	6
5. motivating students	53	30.6	1
6. learning materials	15	8.7	4
7. gifted and talented	14	8.1	5
8. evaluating students	6	3.5	8
9. affective development	19	11.0	2
10. learning objectives	5	2.9	9

N = 156

*Topics are abbreviated. See Appendix I for complete titles.

Staff Development Strategies

A second major purpose of this study was to identify the preferred staff development strategies of teachers engaged in the individualization of instruction. Part B of the teachers' survey dealt with some of the variables involved in the organization and implementation of staff development programs. Matters such as the desired location of the inservice program, its length, its instructional mode, and rewards for participants were addressed.

As shown in Table 3.7, teachers were asked how much time they were willing to devote to inservice/staff development activities either with or without pay. Over two-thirds of the respondents were willing to devote six or more days to inservice activities if they were paid a stipend equal to their regular salary. These six or more days reflected both Saturdays and days during the summer. However, only 16.1% of the teachers were willing to spend an equal amount of time on staff development activities without pay.

Teachers and principals disagreed about who should have the primary responsibility for planning and organizing inservice professional development programs for teachers. The majority of teachers, as shown in Table 3.8, indicated they felt local teachers should have the responsibility of planning and organizing staff development activities. Principals, however, indicated that they thought the Instructional Improvement Committee should be responsible (see Table 3.9) for planning and organizing inservice programs.

Table 3.7

Amount of Time Teachers Would Devote to Inservice

	With Pay		Without Pay	
Time	Frequency	Percent	Frequency	Percent
1 day	3	1.7	23	13.2
2 days	7	4.0	36	20.7
3-5 days	42	24.1	54	31.0
6-10 days	61	35.1	20	11.5
more than 10 days	55	31.6	8	4.6
no time	6	3.4	33	18.9

N = 174

Table 3.8

Who Do Teachers Feel Should Plan and Organize Inservice?

Group	Frequency	Percent	Rank
local teachers	100	57.5	1
school principals	10	5.7	4
IIC	22	12.6	2
central office staff	16	9.2	3
state education agencies	5	2.9	6-7
regional education agency	4	2.3	8
colleges/universities	9	5.2	5
university-related agencies	0	0.0	9
professional education organizations	5	2.9	6-7

N = 171

Table 3.9

Who Do Principals Feel Should Plan and Organize Inservice

Group	Frequency	Percent	Rank
local teachers	1	11.1	2-3
school principals			
IIC	7	77.8	1
central office staff	1	11.1	2-3
state education agencies			
regional education agencies			
colleges/universities			
university-related agencies			
professional education organizations			

N = 9

In response to the question, "Who do you think should conduct inservice programs for teachers?" (see Table 3.10), teachers identified local teachers, professional educational organization staff, as well as college/university professors as their choices. Principals on the other hand, as shown in Table 3.11 indicated that school principals should be involved as well as local teachers and college/university professors in conducting inservice programs for teachers.

In order to ascertain the motivational factors that attract teachers to staff development programs, a list of features was provided for their reaction. They were asked to "assume that staff development programs concerning these topics were available and you were interested in the topic, indicate the extent to which the presence of each of the following features would affect your decision to participate in an inservice program." Respondents were asked to circle a number in one column for each of the items listed according to four descriptors on a Likert-type scale from one, "detractive" to four, "strong attractive." Table 3.12 shows that school district's paying expenses and awarding points toward the salary schedule was attractive or strongly attractive to over 90% of all respondents. "Obtaining released time" and "receiving college or university credit" were highly counted also. Some other additional attractive features suggested by teachers were "interesting topics/subjects," "practicality/relevancy," and "time of day, week, month, etc."

Table 3.10

Who Do Teachers Feel Should Conduct Inservice?

Group (Choose 1)	Frequency	Percent	Rank
local teachers	20	11.5	1-2
school principals	9	5.2	5-6
IIC	6	3.4	8
central office staff	12	6.9	4
state education agency personnel	5	2.9	9
regional education agency personnel	8	4.6	7
professional educational organization staff	20	11.5	1-2
college/university professors	18	10.3	3
university-related agencies staff	9	5.2	5-6
Combination of the Above			
local teachers	43	24.7	2
school principals	19	10.9	8
IIC	11	6.3	9
central office staff	25	14.4	7
state educational agency personnel	26	14.9	6
regional education agency personnel	30	17.2	5
professional educational organization staff	42	24.1	3
college/university professors	44	25.3	1
university-related agencies staff	38	21.8	4

N = 174

Table 3.11

Who Do Principals Feel Should Conduct Inservice?

Group	Frequency	Percent	Rank
local teachers	8	88.8	1-2
school principals	8	88.8	1-2
IIC	5	55.5	4-8
central office staff	5	55.5	4-8
state education agency staff	5	55.5	4-8
regional education agency staff	4	44.4	9
professional education organization staff	5	55.5	4-8
college/university professors	6	66.6	3
university-related agencies staff	5	55.5	4-7

N = 9

Table 3.12

The Most Attractive Rewards for Teachers for Participating In Inservice Training

Reward	Mean	4*	3	2	1	Percent of 3&4	Rank
school district paying expenses	3.632	124	39	8	3	93.68	1
school district awarding points toward salary increases	3.425	97	60	12	4	90.23	2
obtaining released time	3.351	86	70	12	5	89.65	3
receiving college or university credit	3.402	93	61	18	1	88.51	4
fulfilling certification requirements	3.103	73	55	38	7	73.56	6
receiving written certificate achievement	2.247	12	39	104	18	29.31	10
holding program in "attractive" location	2.460	17	60	84	12	44.25	9
having widespread participation by peers	2.667	28	70	67	8	56.32	8
attending presentation by recognized scholars in field	3.213	68	80	23	1	85.06	5
having opportunity to travel	2.741	40	62	60	11	58.62	7
Additions							
interesting topics/ subjects		3	1				
practicality/relevancy		3	1				
time of day, week, month, year		2	0				

N = 174

*
4 = strongly attractive
3 = attractive
2 = inconsequential
1 = detractive

Table 3.13 records teachers' choices of the most attractive feature to them from all ten. While monetary items maintained their popularity, the feature, "attending presentation by recognized scholar in the field" moved up the rankings from fifth place to the third and fourth positions.

Principals, on the other, felt released time would be the most effective feature in motivating teachers to participate in staff development programs. Table 3.14 also indicates that some principals thought that financial arrangements were attractive features for teachers.

Although over 25% of all teachers surveyed said they attended more than four inservice programs last year (see Table 3.15), almost 50% of them said they did not attend as many inservice programs last year as they would have liked to have attended (see Table 3.16). All of the 84 teachers who indicated that they did not attend as many inservice programs as they liked last year were asked their reasons for not attending. As shown in Table 3.17, most teachers indicated they could not find a program scheduled at a time they could attend. Eighteen teachers specified other reasons why they did not attend as many inservice programs last year as they would have liked. Most of the additional reasons reflected family obligations such as a "new baby" and "personal schedule." Other personal priority reasons mentioned included "on a sabatical," "illness," transportation problems," and "still in college."

Table 3.13

The Most Attractive Reward for Teachers
for Participating in Inservice Training

Reward (Forced choice of one)	Frequency	Percent	Rank
school district paying expenses	55	31.98	1
school district awarding points toward salary increases	35	20.35	2
obtaining released time	22	12.79	3-4
receiving college or university credits	18	10.46	5
fulfilling certification requirements	4	2.33	8
receiving written certificate of achievement	1	.58	9-10
holding program in "attractive" location	1	.58	9-10
having widespread participation by peers	5	2.91	7
attending presentation by recognized scholar in field	22	12.79	3-4
having opportunity to travel	9	5.23	6

N = 172

Table 3.14

Principals' Perceptions of the Most Attractive Reward to Teachers for Participating in Inservice Training

Reward	Frequency	Percent
school district credit for pay purposes	2	22.22
released time	5	55.55
university credit	1	11.11
stipend	1	11.11
travel expense		
certificate of achievement		

N = 9

Table 3.15

Number of Inservice Programs Teachers Attended Last Year

Number of Programs	Frequency	Percent	Rank
None	15	8.62	6
1	23	13.22	4
2	39	22.41	2
3	35	20.11	3
4	17	9.77	5
More than 4	44	25.29	1

N = 173

Table 3.16

Attendance at Last Year's Inservice Programs

Did you attend as many as you would have liked to have attended?

Answer	Frequency	Percent
Yes	87	50.00
No	84	48.27

N = 171

Table 3.17

Reasons Teachers Did Not Attend Inservice Last Year

Reason	Frequency	Percent	Rank
I could locate no programs which were of interest.	10	5.75	5
I could locate no programs which were scheduled at times I could attend.	34	19.54	1
I generally find inservice programs to be "a waste of time."	3	1.72	6
I could not obtain any released time.	18	10.34	2
I could not obtain any support funds for travel and/or fees.	14	8.05	3-4
My job responsibilities would not permit me to attend.	14	8.05	3-4
Other (18 responses)			

N = 83

Principals were asked which three reasons teachers gave most frequently for not attending staff development programs. As shown in Table 3.18, they were asked to rank the nine reasons from "most frequent reason" to the "third most frequent reason." Some principals ranked more than three, necessitating another category labelled "other." Additional reasons suggested by principals were "too tired," "too many other responsibilities," and "I have too many meetings."

Teachers were asked to indicate their preferred format for staff development programs. They were asked to "assume that you are interested and committed to participate in an inservice program and that we are trying to fit the format of that program to your preference." As shown in Table 3.19, over 70% of all teachers surveyed wanted inservice programs scheduled during the "working day." Their preference for three months during which inservice programs would be most convenient for them to attend were October, February, and January (see Table 3.20) and ranked in that order.

Almost 75% of all teachers surveyed preferred an "intensive" type of inservice where participants would gather and the program would last for one or more days (see Table 3.21). This type of format was preferred over the continuous type of staff development program that entails a series of gatherings on a daily, weekly, or monthly basis.

In response to the question, "If you were to participate in an inservice program to be held within easy commuting distance

Table 3.18

Principals' Estimation of the Reasons Teachers Give Most Frequently for Not Attending Inservice Programs

Reasons	3*	2	1	Other	Sum	Rank
Programs were not on topics which were of interest or use to me.	2(6)	0	2(2)	1 1/2	8 1/2	3
I could not obtain released time.	3(9)	0	0	1 1/2	9 1/2	2
The programs were not scheduled at times I could attend.	1(3)	4(8)	1(1)		12	1
I could not obtain the necessary funds for travel.	1(3)	0	2(2)	1 1/2	5 1/2	5
I generally find staff development programs a waste of time.	0	1(2)	0	1 1/2	2 1/2	8
My job responsibilities did not permit my absence.	1(3)	2(4)	1(1)		8	4
My supervisors did not support my participation.	0	1(2)	1(1)	1 1/2	3 1/2	6
I was disappointed with past programs in which I have participated.	0	1(2)	1(1)		3	7

N = 9

*Frequencies were calculated by multiplying the number of responses in each category by a weighted response value. "Most Frequent Reason" was assigned a weight of 3; "Second Most Frequent Reason" a weight of 2; and "Third Most Frequent Reason" a weight of 1. Other rankings were given half a point. The sum was calculated by adding across categories.

Table 3.19

When Teachers Feel an Inservice Program Should be Scheduled During the School Year

Time	Frequency	Percent	Rank
on weekends	9	5.17	4
during the working day	122	70.11	1
after working hours	27	15.52	2
before working hours	3	1.72	5
during the summer	13	7.47	3

N = 174

Table 3.20

Month to Schedule Inservice

Month	Frequency	Percent	Rank
August	53	10.56	4-6
September	53	10.56	4-6
October	66	13.15	1
November	28	5.58	9
December	7	1.39	12
January	59	11.75	3
February	63	12.55	2
March	53	10.56	4-6
April	47	9.36	7
May	20	3.98	10
June	34	6.77	8
July	19	3.78	11

Number of Respondents = 174
Number of Responses = 502

Table 3.21

Type of Inservice Preferred by Teachers

Type	Frequency	Percent
Intensive (only one gathering of the participants which may last for one or more days)	130	74.71
Continuing (a series of gatherings on a daily, weekly, or monthly basis)	44	25.29

N = 174

and requiring several meetings of the participants (i.e., continuing), according to which schedule would you prefer that the meetings be held?" Almost 60% of the respondents (see Table 3.22) said that they would prefer weekly meetings.

Teachers were asked what was the maximum number of days they felt they could or would leave their job to attend an intensive inservice program. On Table 3.23, 55.75% said two days and 21.84% said three to five days. More than 80% of the teachers would or could prefer to spend two to ten or more days away from their job for intensive inservice programs.

In response to the question inquiring about the minimum size of a discussion group, most teachers, as seen in Table 3.24, preferred six to ten people in their discussion groups and then they would prefer them larger rather than smaller in size.

Tables 3.25 and 3.26 show the responses to the question, "Who would you prefer to conduct inservice programs?" When asked to choose only one of the nine groups, teachers preferred that their peers conduct staff development programs. When allowed to choose a combination of the nine groups, teachers indicated professional educational, organizational staffs and college, and university professors were their preference for conducting inservice programs.

Table 3.27 shows a list of 15 modes or learning activities that teachers were asked to react to and to indicate their degree of preference for each on a Likert-type scale from four "strongly prefer" to a one "dislike." Teachers were to assume that each of

Table 3.22

Preferred Meeting Schedule for Continuing Inservice

Schedule	Frequency	Percent	Rank
On consecutive days or nights.	25	14.37	3
Weekly	103	59.19	1
Bi-weekly	16	9.19	4
Monthly	29	16.67	2

N = 173

Table 3.23

Preferred Meeting Schedule for Intensive Inservice

Schedule	Frequency	Percent	Rank
1 day	27	15.52	3
2 days	97	55.75	1
3-5 days	38	21.84	2
6-10 days	4	2.30	4
More than 10 days	3	1.70	5
Could not attend at all	--	0.00	6

N = 169

Mean 2.103 days

Table 3.24

Preferred Size of a Discussion Group

Size	Frequency	Percent	Rank
5 or less	12	6.90	4
6-10 people	79	45.40	1
11-15 people	51	29.31	2
16-20 people	25	14.37	3
21-30 people	5	2.87	5
More than 30	--	--	6

N = 172

Mean 2.575 people

Table 3.25

Who Do Teachers Prefer to Conduct Inservice Programs?

Group (One Choice)	Frequency	Percent	Rank
local teachers	22	12.64	1
school principals	7	4.02	6
IIC	3	1.72	8-9
central office staff	10	5.75	4
state education agency personnel	3	1.72	8-9
regional education agency personnel	5	2.87	7
professional educational organization staff	11	6.32	3
college/university prof.	15	8.62	2
university-related agencies staff	9	5.17	5

N = 85

Table 3.26

Who Do Teachers Prefer to Conduct Inservice Programs?

Group (combination)	Frequency	Rank
local teachers	41	3
school principals	17	8
IIC	13	9
central office staff	19	7
state education agency personnel	31	6
regional education agency personnel	34	5
professional educational organizational staff	46	1
college/university professors	44	2
university-related agencies staff	39	4

N = 174 respondents

N = 284 respondents

Table 3.27

Teachers' Learning Activity Preference

Mode	Strongly Prefer (4)	Mildly Prefer (3)	Indifferent (2)	Dislike (1)	Total	Rank (4&3)	Not Appro-priate
lecture	35(140)	61(183)	45(90)	30	323	6	4
discussion group	75(300)	63(189)	23(46)	11	489	2	2
simulation	22(88)	72(216)	55(110)	21	304	7	4
gaming	18(72)	50(150)	58(116)	41	222	9	7
computer-assisted instruc-tion	8(32)	34(102)	85(170)	37	134	13	10
programmed learning	8(32)	40(120)	74(148)	43	152	12	9
independ-ent study	18(72)	60(180)	49(98)	35	252	8	12
tele-lecture	5(20)	37(111)	57(114)	66	131	14	9
films	32(128)	72(216)	53(106)	16	344	3	1
case study	32(128)	67(201)	54(108)	16	329	5	5
site visit	93(372)	51(153)	22(144)	3	525	1	5
role playing	17(68)	44(132)	45(90)	58	200	10	10
org. develop-ment process technique	10(40)	50(150)	86(172)	19	190	11	9
supervised readings	8(32)	27(81)	77(154)	53	113	15	9
internship experience	41(164)	55(165)	48(96)	16	329	4	14
other (15 responses)							

N = 174

these modes of instruction was presented expertly. Onsite visits were most popular, with discussion groups and films following. Teachers listed other activities, such as the "construction of materials," "writing reports or surveys," "workshops with options," and "participation in the presentations development."

Of all 17 learning activities most teachers preferred "discussion groups" as their most preferred mode with "site visits" and "lecture." Almost 70% of the teachers who responded listed one of the three as their most preferred mode (see Table 3.28), while the least preferred modes were role playing (23%) and telelecture (15%).

Statistical Analysis of the Data

This section presents an analysis of the staff development needs of elementary teachers who were engaged in the individualization of instruction as they relate to the length of time they had been involved in the implementation of IGE. All of the 174 respondents were grouped according to school in either the "early" or the "late" phase of the implementation process as seen in Table 3.29. There were 105 respondents in four schools in the "early" phase (four years or less) who were involved in the implementation of IGE. In contrast to the "early" phase, there were 69 respondents in five schools who were involved in the implementation of IGE in the "late" phase (six years or more).

Table 3.28

Most and Least Preferred Modes

Mode	Most Preferred			Least Preferred		
	Frequency	Percent	Rank	Frequency	Percent	Rank
lecture	28	16.19	3	18	10.41	3
discussion group	53	30.64	1	2	1.16	11-12
simulation	5	2.89	6-8	1	0.59	13
gaming	5	2.89	6-8	17	9.83	4
computer-assisted instruction	1	0.58	14-16	13	7.51	6-7
programmed learning	2	1.16	9-13	13	7.51	6-7
independent study	2	1.16	9-13	8	4.62	8
tele lecture	1	0.58	14-16	27	15.61	2
films	5	2.89	6-8	6	3.47	9
case study	9	5.20	5	4	2.31	10
site visit	38	21.96	2	-	-	-
role playing	2	1.16	9-13	41	23.70	1
org. development process technique	2	1.16	9-13	2	1.16	11-12
supervised readings	2	1.16	9-13	16	9.25	5
internship experience	12	6.94	4	-	-	-
other	1	0.58	14-16	-	-	-

N = 168

Table 3.29

Length of Time Schools Have Been Involved in the Implementation of IGE

School Number/Name	Number of Respondents	Early Phase Four or less yrs.	Late Phase Six or more yrs.
01/Lewis	31	*	
02/Star	32	*	
03/Arrow	19	*	
11/London	23	*	
05/Meadow	6		*
06/Sawyer	15		*
07/Rise	14		*
09/Davis	19		*
10/York	15		*
Total	174	105	69

N = 174

Of the 174 teachers in the sample, the majority (63.8%) had been teaching 10 years or less and had been in their present school for 5 years or less (66.5%). Over half of the teachers held a bachelor's degree but 22.9% had earned master's degrees. While 32.2% of the teachers said they were not involved in team teaching, 73% of the teachers surveyed said that they had optimal or adequate adaptation of instruction for students in their classrooms. Of all the teachers surveyed in this study, 57% were classroom teachers, 14% were unit leaders, and 20% identified themselves as specialty teachers involved with the remediation of instruction.

Mean scores and standard deviations for each of the ten staff development needs were computed for all teachers in both the "early" phase (Group 1) and the "late" phase (Group 2) of the implementation process. As shown in Table 3.30, the mean scores and their totals for both the early group and late group are presented. Table 3.30 shows the standard deviations and their totals for the ten staff development topics for both groups.

Table 3.31 presents the data regarding the correlation of the staff development topics. The table presents the correlation matrix.

A two-group discriminate analysis as shown in Table 3.32 was performed on the data of the respondents from the four schools in the "early" phase of the implementation process as the first group

Table 3.30

Topics for Means and Standard Deviations of the Ten Staff Development Teachers in the Early and Late Phases of Implementation

	Mean			S.D.		
Topics	Early Group	Late Group	Total	Group	Group	Total
01	2.54286	2.37681	2.47701	1.03801	.92516	.99539
02	2.58095	2.39130	2.50575	.98821	1.04625	1.01291
03	2.40952	2.23188	2.33908	1.03492	.97234	1.01148
04	2.58095	2.62319	2.59770	1.03572	1.09948	1.05852
05	2.86719	2.89855	2.88506	1.06243	.97234	1.02484
06	2.63810	2.59420	2.62069	1.00119	.98993	.99410
07	2.60000	2.72464	2.64943	1.08840	1.05557	1.07417
08	2.60952	2.60870	2.60920	.98542	.97343	.97786
09	2.65714	2.66667	2.66092	1.04540	.98020	1.01718
10	1.98095	2.11594	2.03448	.98039	.91613	.95504

Table 3.31

Pooled Within-Groups Correlation Matrix

Topics	01	02	03	04	05	06	07	08	09	10
01	1.0000									
02	.46048	1.0000								
03	.45463	.64695	1.0000							
04	.36162	.50218	.50432	1.0000						
05	.52136	.57205	.60422	.52719	1.0000					
06	.56386	.54798	.66403	.47001	.72335	1.0000				
07	.39640	.45335	.49532	.42394	.48321	.42892	1.0000			
08	.46132	.48283	.65729	.41693	.51444	.63167	.51904	1.0000		
09	.51102	.50096	.58128	.54367	.64443	.62689	.49952	.58662	1.0000	
10	.45300	.46938	.49949	.48256	.54209	.58922	.31343	.51093	.47110	1.0000

Table 3.32

F-Ratio for Inclusion of the Ten Staff Development Topics in a Discriminant Analyses

Staff Development Topics	F-Ratio	Probability
01	1.1600	.2830
02	1.4640	.2280
03	1.2860	.2583
04	.06593	.7977
05	.01971	.8885
06	.08074	.7766
07	5.5920	.4556
08	.02969	.9957
09	.03629	.9520
10	8.3100	.3632

and the respondents from the five schools in the "late" phase of the implementation process as the second group. The ten topical needs were the discriminant variables.

The last table in this section, Table 3.32, indicates that none of the discriminating variables satisfied the minimal inclusion criterion. Therefore, the hypothesis stated in Chapter II was supported. The data in Table 3.32 suggest that a linear weighted combination of teacher needs and phase of the implementation process that can differentiate between the two groups of teachers in reference to the dependent variable of time did not exist.

Data From Principals

In addition to their perceptions of the inservice/staff development needs of their staffs, principals were asked to respond to a variety of questions regarding the implementation of inservice/staff development programs in their school.

Principals reported there were a variety of staff development programs sponsored in their schools that ranged from none in one school to ten or more in another (see Table 3.33). Principals described some of the various staff development programs that were sponsored at their schools last year as, "attendance at AIGE," "floating inservice by league," "various conventions," and "districtwide inservice."

Table 3.33

Number of Staff Development Programs
Sponsored Last Year

Number	Frequency
0	1
2	1
3	1
4	1
5	1
6	1
8	1
10 or more	1

N = 8

Most principals had difficulty estimating the total amount of money spent annually on staff development programs in their schools. As shown in Table 3.34, five principals did not know the amount. The other four estimates ranged from $1,000 in one school to $3,000, $7,500, and $12,000 per district in the other three. Most of the resources used for staff development programs came from local school district revenues (see Table 3.35). The rest of the funding used for inservice and staff development came from such non-district sources as state and federal government programs such as "Title I, Title IV, and IVb" as well as "Cooperative Education Services Agencies (CESA)," "IGE leagues" and "teacher training institutes." (See Table 3.36.)

Eight of the nine principals reporting indicated that participation in all or at least some staff development programs is mandatory for teachers in their districts (see Table 3.37).

Principals were asked to identify benefits that are offered to teachers in their school for attending staff development programs. As shown in Table 3.38, all nine districts provided released time to teachers. Giving credit for local district pay purposes and honoring university credits earned were also quite common.

In a ranking of factors that impeded participation in staff development programs, principals, as shown in Table 3.39, identified "limitations imposed by teachers or administrator contracts" as the greatest inhibitor. Scheduling programs at the most appropriate

Table 3.34

Total Amount Spent Annually on Staff Development by School

Amount	Frequency
$1,000.00	5
$3,000.00	1
$7,500.00	1
$12,000.00	1

N = 9

Table 3.35

Percent of Staff Development Funding That Comes From School District Revenues

Percent	Frequency
no response or don't know	2
60%	2
90%	1
95%	1
100%	3

N = 9

Table 3.36

Major Non-District Sources of Revenue

Source	Frequency
none	3
state government	2
federal title I, title IV, title IVb,	2
CESA's, teacher training institutes	2

N = 9

Table 3.37

Is Participation In Staff Development Mandatory?

Response	Frequency
yes	5
no	1
only for certain programs	3

N = 9

Table 3.38

Benefits Offered to Participants Attending Staff Development Programs

Benefit	Frequency	Rank
school district credit for pay purposes	7	2-3
released time	9	1
university credit	7	2-3
stipend	2	5
travel expense	6	4
certificate of achievement	0	6

Number of Respondents = 9
Number of Responses = 31

Table 3.39

Factors That Principals Perceive to Impede More Widespread Participation by Their Staffs in Staff Development Programs

	Frequency									
Factors	1	2	3	4	5	6	7	8	Total	Rank
lack of support and participant from supervisors.		1			4	1	1	1	29	7
lack of motivation by participants.		3		2		1	1	1	37	5
limitations imposed by teachers or administrator contracts.	4	1		2		1		1	53	1
inadequate training staff for conducting programs.	1	4		1		2	1		49	3
inadequate training materials.			1	1	2	2	2		29	6
difficulty in scheduling the programs at appropriate times.	2		5	1					51	2
lack of funds for providing released time.	2	1	2	1		1	1		45	4
state or other non-district regulations.					2		2	3	15	8

N = 9

times and finding adequately trained staff to conduct the programs were ranked second and third, respectively by administrators as factors that impeded participation in inservice.

In Table 3.40,principals ranked six items in terms of the difficulty they present to staff in designing and implementing staff development programs. The six items were ranked from "most difficult" to "least difficult" on a Likert-type,six-point scale. Again, scheduling programs at a time when all teachers can attend was ranked first. Identifying topics that may attract participants and obtaining appropriate training materials were often difficulties experienced by principals in the design and implementation of staff development programs.

In response to the question, "Assume that your budget for providing inservice opportunities was suddenly increased by 25%, what would you spend this money on?" Six principals said they would spend that money on inservices dealing with teaching techniques and interpersonal (human) relations. The other three principals said they would use the money to provide released time for teachers (substitute teachers) so that teachers would be able to go during the school day to other schools and other staff development programs.

It was the opinion of most principals that the major problems that they faced in providing effective inservice opportunities for teachers was the lack of money to give them released time and the inability of teachers to find time outside the school day to

Table 3.40

Difficulties in Designing and Implementing
Staff Development Programs

	Frequency							
	Most Difficulty					Least Difficulty		
Difficulty	1	2	3	4	5	6	Total	Rank
scheduling programs at a time when all can attend	4	4		1			47	1
developing or obtaining appropriate training materials.		1	2	4	1	1	28	3
identifying topics which attract prospective participants to attend.	4		2	2	1		40	2
identifying a site for the program which is attractive, cost effective, and convenient to participants.	1	2	1		1	3	25	5
identiyfing skills trainers to lead the program.			3	2	4		26	4
obtaining recognized scholars to speak at the program.		2	1		2	4	22	6

N = 9

participate. Principals documented their opinions on these major problems to providing effective inservice programs by saying "money," "released time for staff," and "time limitations." One principal summed it up by saying, "Teachers put in a full day and feel burned out at the end of the day and on weekends. With the length of the instructional day as it now is, effective inservice is not possible."

Principals estimated that they spent anywhere from 5% to 40% of their time to planning, implementing, or evaluating staff development activities for their teachers (see Table 3.41). In discussions with all nine principals regarding this question, some interpreted "planning, implementing, and evaluating staff development activities for teachers" to be quite broad and encompassing the supervisory-evaluative process. Other principals restricted their interpretation of the question to formal involvement in specified inservice programs in relationship to all their other duties and responsibilities.

Although the principals were not formally interviewed utilizing an interview schedule or audio-tape recorder, all nine principals were extensively involved in several informal discussions regarding the principal's instrument package. All principals expressed an interest in the questionnaire and stated that they did not have any problems with any of the items regarding how to answer the questions. Most principals did, however, express frustration and a lack of knowledge about the questions that were asked about how much money was spent on staff development programs in their school.

Table 3.41

Percentage of Time Principals Estimate They Plan, Implement, or Evaluate Staff Development Activities for Teachers

Percentage of Time	Frequency
5	1
10	2
15	1
20	1
25	2
30	1
40	1

N = 9

Interview Data

Of the 174 teachers in the 9 schools that were surveyed, 41 of them were interviewed (23.5%) using an interview schedule (see Appendix C). All the teachers, including one unit leader, randomly chosen, were interviewed in each of the nine schools. One unit teacher in one of the nine schools chose not to be interviewed. One unit leader and one unit teacher in two different schools were not interviewed because they were ill on the day the interviews took place. The unit leader that was not interviewed did fill out a teacher questionnaire, however. (See Table 3.42.)

The interview schedule as shown in Appendix C was designed to serve three purposes. The first purpose was to see if teachers had any problems responding to any of the items on the questionnaire. The second purpose of the interview was to validate the results of the questionnaire, i.e., to see if there were any issues or events that would have affected the way teachers filled out the survey. The third purpose was to gather any new information about staff development and inservice programs in that school that might not have been addressed by the questionnaite.

None of the teachers interviewed had any problems answering any of the items on the survey. They did, however, express frustration with forced choice items that made them choose one item in exclusion to all others. One teacher expressed it best when she said, "My choice of strategies and format would depend on what my specific staff development need may be."

Table 3.42

Teacher Interview Schedule to Assess
Staff Development Needs

School Number/Name	Total Number of Teachers	Number of Teachers Interviewed	Percent
01/Lewis	31	6	19.35
02/Star	37	4	10.81
03/Arrow	21	5	23.81
05/Meadow	6	4	66.67
06/Sawyer	15	5	33.33
07/Rise	24	6	25.00
09/Davis	23	4	17.39
10/York	21	3	14.29
11/London	27	4	14.81

N = 41

Almost all teachers interviewed defined the term "staff development" as "professional growth for the individual" and the term "inservice" as "a mandatory meeting held after school that usually does not meet my needs." While almost all of the teachers were consistent in their definitions of the terms "inservice" and "staff development," they were also equally consistent in their defining of a staff development "need" as being a "deficiency."

Information regarding issues and trends that affected inservice programs varied among each unit of teachers interviewed and among all nine schools.

CHAPTER IV

FINDINGS, CONCLUSIONS, AND IMPLICATIONS

This chapter consists of four sections. The first section presents a brief overview of the study. The second section presents the major findings. The third section contains the conclusions of the study. The final section suggests implications for practice and for further research.

Overview of the Study

The purpose of this research was to identify the staff development needs and preferred inservice strategies of teachers as related to the number of years their schools had been engaged in individualized schooling. All the teachers and principals in nine IGE elementary schools were surveyed to ascertain their perceived staff development needs and preferred strategies. One I & R unit was randomly selected in each school, and each teacher in the unit was interviewed. The focus of this research was to see if teachers in schools who are in the early phase of the implementation process would have the same needs as those in the later phases of the implementation process. In addition to the information regarding the perceived needs and preferred strategies of teachers, other demographic information was obtained.

The theoretical and conceptual foundation for this study included change theory as well as the literature on staff development and teacher participation. Change theory provided the basis for understanding the process of change. Four major theoretical models and their interrelationships were presented: (a) the research, development, and diffusion model, (b) the social interaction perspective, (c) the problem-solver perspective, and (d) the linkage model. The change models provided the theoretical framework for studying the relationship between individual needs and stage of implementation which was measured by using the surogate variable of time.

The literature on staff development helped set the foundation for a theory of implementation. In the literature, staff development is seen as an integral part of the implementation process. A model of an instructional system design was used as an outline from which the literature pertaining to staff development was reviewed.

The literature pertaining to teacher participation in planning and implementing change served as a link between change theory and the literature on staff development. According to the literature, staff development activities are an antecedent to successful change. Further, the literature suggests that when teachers have an opportunity to participate in planning staff development activities, implementation of change is likely to be successful.

The methodology of this study was survey research. A field study methodology was employed using both questionnaire and interview

techniques of survey research. The staffs of 9 elementary schools were visited, and questionnaires were uniformly administered to 174 teachers and the 9 school principals. A structured open-ended interview was used with 41 teachers (1 I & R unit in each school) to seek further verification of what had been previously stated, to probe for more information, and to clarify the interpretations of various terms. The data were presented in tabular form and analyzed using a two-group discriminate analysis.

Findings

This section presents the major findings of this research study.

Demographic Profile of Respondents

Of the 174 teachers surveyed, 28.7% had been teaching 5 years or less and 38.5% had been in their present building for 2 years or less. The majority (53.4%) had attained a bachelor's degree but had not earned any credits beyond this level. Although all nine schools were classified as IGE schools, almost one-third of the teachers (32.2%) said they were not involved in team teaching and 24.1% said they made "some" adaptation of instruction to meet the individual needs of their students. It is important to note that out of 174 teachers surveyed, only 56.9% were unit teachers. The other 43% were comprised of specialists, such as unit leaders

(13.8%). Of the 174 teachers 20% of them were involved with remediation of instruction.

Staff Development Needs

Of the ten staff development topics presented, teachers felt they were most experienced with "choosing learning materials for students, techniques for motivating students, and procedures for recording student achievement." Although they felt very experienced with techniques for motivating students, the teachers ranked it as their number one need along with strategies for dealing with students' affective development, ways of teaching gifted and talented students, and ways for improving the team planning process. Principals, on the other hand, saw ways of teaching the gifted and talented and skills in writing learning objectives as the most important topics for their teaching staffs. Principals agreed with teachers who perceived a high need for ways to improve the team planning process.

Staff Development Strategies

In addition to the identification of teachers' perceived staff development needs and prior experiences, this research study sought to identify the preferred strategies for providing the needed inservice programs. Questions regarding the time, place, and manner of these delivery systems as well as the characteristics of their teacher/trainers were addressed.

To meet their identified staff development needs, over two-thirds (66.7%) of the teachers surveyed said they would be willing to devote six or more days a year to inservice activities but only if they were paid a stipend equal to their salaries. Teachers overwhelmingly (70%) wanted released time during the school day to attend inservice programs. They chose the months of October, February, and January as the most convenient times and in that order. The months of December, July, and May were identified as the least convenient months. The majority of teachers (71.2%) felt they could be away from their classrooms for a maximum of two days.

The amount of time spent at inservice programs was of concern to teachers. In general, an inservice program can be either intensive, i.e., involving only one gathering of participants and lasting for one or more days, or it may be continuous; a series of gatherings on a daily, weekly, or monthly basis. Almost three-fourths of the teachers surveyed (74.7%) preferred an intensive format for two days or less. For a continuous format, 59% of the teachers preferred weekly meetings.

Teachers preferred the site of a staff development program to be close to their schools. Proximity was valued more highly by teachers than holding inservice programs in "attractive" locations, which teachers ranked ninth out of the ten attractive rewards that were presented to them. Although teachers wanted staff development programs scheduled in a location near them, they were willing to travel to other schools for site visits.

Although time and place are important in scheduling staff development programs in order to achieve extensive participation on the part of teachers, these programs cannot be effective unless teachers are willing to participate. This means that staff development programs must be designed around the preferred modes of the participants. Almost 70% of all respondents listed "site visits," "discussion groups," and "lecture" as their most preferred learning mode. Role playing and tele-lecture were the least preferred modes. Most of the teachers wanted the size of discussion groups to be from six to ten people.

Over half of the teachers (57.5%) felt local teachers should plan and organize inservice activities while seven of the nine principals felt responsibility should be limited to the Instructional Improvement Committee (IIC). Teachers felt inservice programs should be conducted by teachers with help from professional education organization staffs, such as the State Department of Public Instruction, and college/university professors. Principals, on the other hand, thought that principals and teachers should conduct inservice programs together.

Functional and Dysfunctional Aspects
Staff Development Strategies

In addition to the ideal time, place, manner, and characteristics of the leaders/conductors of staff development programs, functional and dysfunctional aspects of inservice strategies were examined.

Almost half of all teachers surveyed (48.3%) indicated they did not attend as many inservice programs as they wanted to last year, and most of them indicated it was because they could not find a program scheduled when the could attend. This is in light of the fact that over 91% of the teachers surveyed attended at least one inservice program last year, 77.6% attended at least two, and 55.2% attended three or more. Most of the teachers (81%) said they would be willing to spend one day or more on inservice activities without pay.

Teachers indicated a felt need in staff development topics and expressed an interest in participating in inservice programs. In the next section, those factors that hindered widespread teacher participation in staff development programs are discussed.

Factors that Hinder Participation and Implementation of Staff Development Programs

Of the 48.27% of the teachers who indicated they did not attend as many inservice activities last year as they would have liked, 40% of them said it was because they could not locate any program that was scheduled at a time they could attend. Of those teachers surveyed, 22% said they could not get released time, and 17% stated they could not obtain any support funds or that their job responsibilities would not permit them to attend. Many teachers

cited other personal priorities, such as family obligations, for not attending staff development programs.

Principals' perceptions of teachers' reasons for not attending inservice programs were the same as those of the teachers. Principals cited "programs were not scheduled at times I could attend" and "I could not get released time" as the two most common reasons. According to principals' perceptions, the third most common reason teachers gave for not attending inservice activities was that the programs were not on a topic which was of interest or use to them.

In a ranking of factors that impeded participation in staff development programs, principals identified "limitations imposed by teachers or administrator contracts" as the greatest inhibitor. Scheduling programs at the most appropriate times and finding adequately trained staff to conduct the programs were ranked second and third by administrators as factors that impeded participation in staff development programs. Principals also ranked "scheduling programs at a time when all teachers can attend" as the most difficult problem a staff has in designing and implementing staff development programs.

Principals reported that the major problems that they faced in providing effective inservice opportunities for teachers were the lack of money to give teachers released time and the inability of teachers to find time outside of the school day to participate in staff development programs. The principals reported that if they had

a larger inservice budget they would spend the money to give teachers released time and inservice programs on teaching techniques and interpersonal (human) relations training. This was consistent with their perception of the staff development needs of their teachers.

Factors that Promote Participation and Implementation of Staff Development Programs

Various rewards were identified by teachers and principals to promote participation in staff development activities. Monetary items such as "school district paying expenses" (32%) and "awarding points toward the salary schedule" (20%), were ranked highest with teachers while 13% of them thought "released time" and "attending a presentation by a recognized scholar in the field" were important. Principals' perceptions of the rewards to promote participation in staff development programs were basically the same as those of the teachers. Principals (56%) ranked released time as the most important with the school district giving credit for pay purposes as the second most important motivator.

A Statistical Analysis of the Data

A two group discriminate analysis was performed on the data of the respondents from the four schools in the "early" phase of the implementation process and the respondents from the five schools in the "late" phase of the implementation process. The ten staff

development needs were the discriminant variables. The classification routine was able to correctly identify only 62.64% of those cases that were members of the groups to which they actually belonged. The prior probability for predicting membership in Group 1 initially was 60%. Based on this statistical procedure, one cannot predict whether a respondent is in the "early" phase or the "late" phase of the implementation process by these ten staff development needs.

Conclusions

The following conclusion can be made from the data described in this study. These conclusions deal with (a) the staff development topics identified by both teachers and principals, (b) the preferred strategies identified by teachers, and (c) how the staff development needs of teachers relate to the phase of the implementation process.

Conclusion 1

One can conclude from the data reported in this research study that the greatest staff development needs identified by both principals and their staffs deal with interpersonal or human relations topics. While teachers and principals in this study agreed on the need for interpersonal staff development activities, they disagreed on the specific topics to be dealt with. Previous research (Lehr, 1979) had shown that principals perceive the staff development needs

of their staffs to be different than those identified by their teachers.

Conclusion 2

In this study, teachers indicated quite clearly that they wanted to participate in all aspects of inservice program development. They identified their willingness to identify needs and to plan, implement, and conduct activities as well as to participate in them. The findings of this study are in agreement with the studies of Sergiovanni (1974) and Rubin (1971) who stressed the need for teacher participation in the implementation process in order to change effect successfully. The principals, however, also indicated a need to be involved in conducting inservice programs, which is consistent with the findings of researchers who have warned implementors must not rely on teacher participation alone (see, for example, Ingersold, 1976).

Conclusion 3

Although teachers indicated a willingness to participate in all aspects of an inservice program they also reported a willingness to seek out people and resources external to themselves for solutions to their problems. They indicated that they desired help from outside resource agents, such as college/university professors and professional education agency staffs. This reliance on outside resources is a key concept of the linkage model of planned change that

was developed by Havelock (1973). This eclectic model brings outside resource persons to consumers in a "macrosystem" of knowledge linkage. The linkage model explains how knowledge utilization is brought to the teachers in their efforts at planned change. The teachers in this study supported the need for similar linking systems.

Conclusion 4

As the data from this study shows, teachers overwhelmingly see motivating students as their greatest staff development need. This conclusion is consistent with the problem-solving approach to planned change. Petrie (1978) also found that two-thirds of teacher needs and preferences are directly related to specific day-to-day problems.

Conclusion 5

One can conclude from the results of this study that teachers are willing to participate in staff development programs that are designed to meet their needs. In this study teachers identified specific deficiencies (needs) and a willingness to spend time improving on these areas. They reported that they have attended staff development programs but not as many as they had wished. Both teachers and principals reported that they wanted to learn specific techniques to deal with everyday problems. This supports the literature on teacher participation in staff development programs that

report increased teacher participation in inservice programs that reflect their needs (Rubin, 1971).

Conclusion 6

In this study the teachers demonstrated a fairly definite preference for involvement in planning and implementing staff development programs based on their specific needs and preferred strategies. Teachers indicated a willingness to conduct and participate in ongoing needs assessments which may accurately identify their staff development topical needs.

Conclusion 7

Based on the results of this study, one cannot identify the stage of the implementation process that teachers (or schools) are in by these ten staff development needs. They cannot be used to discriminate between the perceived staff development needs of teachers in the "early" phase of implementation and those in the "later" phase. We can conclude, therefore, that the staff development needs of teachers in both the "early" and "late" phases of the implementation process appear to be quite similar.

Implications for Practice

One of the major goals of education is to improve the teaching-learning process in the classroom. Staff development programs have been suggested as an appropriate vehicle to bring about the necessary changes that will enhance this process. Staff

development/inservice programs have long been lauded by many as an effective way to achieve long-lasting change in the educational system. This study, limited to elementary teachers and principals in the state of Wisconsin involved in the individualization of instruction, suggests the following improvements in staff development/inservice programs:

1. Both teachers and principals should be involved in planning and implementating staff development programs. It is quite clear in the data from this study that teachers wish to be involved in planning, organizing, and conducting their own staff development activities. It is also quite clear that principals feel that they too should be involved in this process. The participative decision-making literature suggests that it is imperative that those in authority (principals) involve their subordinates (teachers) in the organizational decision-making process.

2. A thorough needs assessment should be conducted locally to gather the necessary information from which to design an effective staff development program. A thorough needs assessment survey similar to the one done in this study will gather the information that is necessary for planning and conducting successful staff development programs. If inservice programs are to be successful, their content must reflect the needs of the participants.

3. Teachers indicated that they have strong needs and are willing to spend professional development time in order to meet those needs. However, they have also expressed frustration with

inservice programs being scheduled at times when they could not attend. Careful attention should be paid to scheduling to ensure that staff development activities are scheduled at times when most teachers would be able to attend. Utilizing the information gathered on a needs assessment would help to alleviate many conflicts in scheduling. An ongoing evaluation of teachers' participation in staff development programs may be warranted to see if scheduling conflicts are a major problem.

4. Teachers participating in a given staff development activity should be able to suggest the format for the inservice program, whether it will be "intensive" or "ongoing," as well as other pertinent characteristics. The content of the staff development program must address the participants' needs and the activities must be acceptable also.

5. Teachers indicated a reluctance to travel very far to attend inservice programs. With the high cost of transportation and the shortage of teacher time, travel should be kept to a minimum. Budget costs for travel expenses could be kept to a minimum if college/university professors, professional education staff, and other teacher/trainers that conduct inservice programs could travel to the school district rather than have the participants travel to another site. Site visits, while very important activities with teachers, may have to be reduced. If additional travel is necessary, it should be weighed against the additional benefits that it may bring to the program.

6. Since teachers indicated a strong preference to have released time to attend inservice programs, school districts may wish to consider granting them one or two days to participate. In order to lessen the disruption of the learning process of students when the classroom teacher is absent, a district might wish to hire permanent substitute teachers. Permanent substitute teachers get to know the students and the system quite well, thereby eliminating much of the disruption that comes with a teacher's absence. If funds are not available for substitute teachers, districts may wish to explore the feasibility of a unit of teachers or teachers involved in a team teaching situation to take turns attending staff development programs while their colleagues assume their teaching responsibilities. This would again be advantageous for students because it would not disrupt their routine.

Another possibility would be for teachers to exchange positions with teachers in another school district for one or two days. This would allow them to observe another school in much greater depth.

7. In order for inservice programs to effect meaningful change within a school district, they must address the major needs in a well-coordinated manner. A district plan to meet the staff development needs of teachers that would cover two, three, or more years would be helpful for long-term planning. A long-term, ongoing district inservice plan would aid in the budgeting

process, help all facets of the district coordinate their planning, and enable teachers to make provisions to participate.

8. Teachers identified specific staff development needs and indicated a willingness to spend time in inservice activities to meet these needs. School district boards of education and administrations should provide leadership and financial support to enable teachers to participate in their professional development.

Implications for Research

This final section contains suggestions for further research. The following warrant further consideration and investigation.

1. While teachers indicated a willingness to identify their needs and to participate in staff development activities, further research needs to be done to determine if teachers do indeed participate in staff development programs that are designed to meet their specific day-to-day needs, and also if these programs do meet their needs.

2. Although this study focused on elementary teachers and a similar study by Lehr (1979) involved middle school teachers, further research needs to be done involving secondary school staffs. Such studies are needed to provide a broader understanding of the staff development needs and preferred strategies of teachers at all levels of education.

3. This research study was conducted in Wisconsin elementary schools that individualize instruction, i.e., IGE schools. Replications of this study should be done in other elementary schools and in other areas of the country.

4. This researcher assumed that teacher participation in designing staff development activities has a positive influence on implementation. Further studies should be done to determine the influence of teacher participation in staff development programs on student achievement in the classroom.

5. Although this study did not find any difference in the staff development needs of teachers who were involved in different phases of the implementation process, a longitudinal study should be done to see how the staff development needs of teachers vary over time.

In summary, additional research is needed to identify teacher needs and preferred strategies as well as those factors that either support or inhibit the successful development of quality inservice programs. Additional research needs to be done to determine how participation in staff development programs relates to improved teaching in the classroom.

It is hoped that this research study has been an addition to the staff development literature and has advanced knowledge of the staff development needs and preferred strategies of teachers. Further knowledge of staff development programs may also provide educators with a clearer understanding of the process of planned change which will enable them to improve the quality of education.

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APPENDICES

Appendix A

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STAFF DEVELOPMENT NEEDS IN ELEMENTARY SCHOOLS
THAT INDIVIDUALIZE INSTRUCTION

As part of our study on how an innovation changes over time, we want to identify the staff development needs of teachers, their past staff development experiences and their preferred strategies at this point in time. The information that we will obtain from this effort will contribute to our understanding of the change process and hopefully to your school in planning and implementing staff development activities in the future.

To obtain the information described above, we would like to administer two questionnaires. One questionnaire will ask teachers their topical needs, past inservice experiences, and preferred staff development activities. We would like all teachers in the school to complete this questionnaire. The second questionnaire will ask the building principal to describe the topical needs and past staff development programs. Each questionnaire will take 30-40 minutes to complete and no individual will be asked to fill out more than one. Responses to the questionnaire will, of course, be confidential. A 30 minute follow-up interview with selected teachers will supplement the survey data. Teachers who are members of the unit we have worked most closely with in the past will be invited to be interviewed. Released time through the use of substitutes will be provided for the interviews.

Appendix B

**WISCONSIN RESEARCH AND DEVELOPMENT CENTER
FOR INDIVIDUALIZED SCHOOLING**

UNIVERSITY OF WISCONSIN · MADISON · SCHOOL OF EDUCATION
1025 W. Johnson Street · Madison, Wisconsin 53706 · (608) 263-4200

November 1979

The mission of the Wisconsin Research and Development Center is to improve the quality of education by addressing the full range of issues and problems related to individualized schooling. This study focuses upon the vital area of staff development for teachers. The results will help us to better understand how staff development needs change over a period of time and the best way to meet these needs.

We would ask that you please take the time to complete the attached questionnaire. The results of this study will contribute to a better understanding of the environment in which staff development programs are conducted as well as point to new and better staff development activities. The results of this survey will be shared with you in a few weeks and may be helpful in planning future staff development activities for your school.

If you have any questions, please feel free to call (608) 263-3733.

Sincerely,

Marvin J. Fruth
Professor and
Faculty Associate

Patrick J. Fleming
Project Assistant
Studies of
Implementation

MJF/PJF/jjd

attachments

Remove the Answer Sheet from the back cover and circle the appropriate response for each question. Use Part A of your Answer Sheet.

I.D. #_____

1. Total number years of teaching experience _____.

2. Total number of years at your present school _____.

3. Level of academic attainment. (Circle one number indicating highest level of academic attainment.)

   1) Bachelor's degree
   2) Bachelor's degree + 30
   3) Master's degree
   4) Master's degree + 30
   5) Doctoral degree

4. Are you involved in team teaching this year? (Cirle one number.)

   1) Yes
   2) No

5. Would you describe instruction in your classes as: (Circle one number.)

   1) No adaptation of instruction to meet the different needs of the students.
   2) Some adaptation of instruction.
   3) Adequate adaptation of instruction.
   4) Optimum adaptation of instruction.

6. Area of major teaching responsibility. (Circle the appropriate number.)

   1) unit leader
   2) unit teacher
   3) MAPE (music, art, physical education, IMC)
   4) pupil services (counselor, nurse, social worker, psychologist)
   5) special education
   6) other (specify)_____

A1. EXPERIENCE-NEED INVENTORY

Please indicate your experiences in inservice/staff development programs, activities, or sessions for each topic in the Experience column of Part A of the Answer Sheet. Second, in the Need column of Part A indicate the extent to which you would be interested in learning more about each topic. Use the following definitions:

Experience Categories:

4) Expertise -- have extensive experience in the area and could serve as a consultant to other teachers.
3) Some Experience--have some experience in the area, but am not an expert.
2) Some Knowledge--am quite familiar with the concept or practice, but have no direct experience in carrying it out.
1) No Knowledge--have heard or read about it only incidentally.

Need Categories:

4) Very Strong--if at all possible I would participate in a staff development program on this topic.
3) Strong--would probably participate in a staff development program on this topic.
2) Moderate--would participate in a staff development program on this topic only if it were "convenient" or "required."
1) None--would not attend inservice on this topic.

A1. Topics for staff development programs:

01 Opportunities to help teachers mainstream children with exceptional educational needs.

02 Ways to improve the team planning process.

03 Procedures for recording student achievement.

04 Strategies to help teachers deal with their personal needs, e.g., stress.

05 Techniques for motivating students.

06 Choosing learning materials for students.

07 Ways of teaching gifted and talented students.

08 Methods to improve skills in evaluating students.

09 Strategies to deal with students' affective development.

10 Skills in writing learning objectives.

A2. Please indicate other topics not listed above in which you feel a need for staff development training. (Write the topics on the Answer Sheet.)

A3. If you were to advise someone as to what topical area for a staff development workshop could be most beneficial to them in their efforts to improve instruction you would choose number_____. (Write the number of the topic you would choose on the Answer Sheet.)

PART B

DESIGN FOR STAFF DEVELOPMENT PREFERENCE INVENTORY

TURN YOUR ANSWER SHEET TO PART B

Many variables are involved when considering how to organize and implement a staff development program. While the importance of establishing a program's topic is clear and undeniable, such matters as the desired location of the program, its length, its instructional mode, and rewards for participants are equally relevant concerns. Please help us better understand these areas by responding on Part B of the Answer Sheet to the final 18 questions.

B-1 Assuming that programs concerning topics of your interest were available and that you were paid a stipend equivalent to your regular salary for attending, approximately how much time would you be willing to spend attending inservice professional development programs during the year, including Saturdays and summer? (Circle one number on the Answer Sheet.)

1) 1 day
2) 2 days
3) 3 to 5 days
4) 6 to 10 days
5) more than 10 days
6) no time at all

B-2 Assuming that programs concerning topics of your interest were available and you were not paid for attending, approximately how much of your own time would you be willing to spend attending inservice programs during the year, including Saturdays and summer? (Circle one number on the Answer Sheet.)

1) 1 day
2) 2 days
3) 3 to 5 days
4) 6 to 10 days
5) more than 10 days
6) no time at all

B-3 Who do you think should have primary responsibility for planning and organizing inservice professional development programs for teachers? (Circle the appropriate number on the Answer Sheet.)

1) local teachers
2) school principals
3) IIC
4) central office staff
5) state education agencies
6) regional educational agency
7) colleges/universities
8) university-related agencies
9) professional educational organizations

B-4 Who do you think should conduct inservice programs for teachers?

1) local teachers
2) school principals
3) IIC
4) central office staff
5) state education agency personnel
6) regional education agency personnel
7) professional educational organization staff
8) college/university professors
9) university-related agencies staff
10) combination of the above (specify)

B-5 Assuming that programs concerning topics were available and you were interested in the topic, indicate the extent to which the presence of each of the following features would affect your decision to participate in an inservice program. (Circle a number in one column for <u>each</u> of the items listed below according to the following descriptors.)

(4) <u>Strongly Attractive</u>--would affect my decision to attend.
(3) <u>Attractive</u>--a "nice" feature to have attached to a program, but would not affect my decision to attend.
(2) <u>Inconsequential</u>--would have no affect upon my decision to attend, and I would not care if it were present or not.
(1) <u>Detractive</u>--would have a negative affect upon my decision to attend.

01) school district paying expenses
02) school district awarding points toward salary increases
03) obtaining released time
04) receiving college or university credit
05) fulfilling certification requirements
06) receiving written certificate of achievement
07) holding program in "attractive" location
08) having widespread participation by peers
09) attending presentation by recognized scholar in field
10) having the opportunity to travel
11) other (specify) _____

B-6 Of the list of features presented in Question B-5 above, which feature is the most attractive to you? (On the Answer Sheet, write the <u>number</u> of the most attractive feature.)

B-7 Excluding regular college/university coursework, how many different inservice programs (i.e., programs dealing with distinctly different topics) did you attend last year? Please count conferences as one program. (Circle one number.)

1) none
2) one
3) two
4) three
5) four
6) more than four

B-8 Did you attend as many inservice programs last year as you would have liked to attend? (Circle one number.)

1) Yes
2) No

B-9 If your answer to question B-8 previously mentioned was "No," which of the following responses describes your reasons for not attending? (Circle as many as appropriate.)

1) I could locate no (or no other) programs which were of interest.
2) I could locate no (or no other) programs which were scheduled at times I could attend.
3) I generally find inservice programs to be "a waste of time."
4) I could not obtain any (or any additional) released time.
5) I could not obtain any (or any additional) support funds for travel and/or fees.
6) My job responsibilities would not permit me to attend.
7) Other (specify) _____

PREFERRED FORMAT FOR STAFF DEVELOPMENT PROGRAMS

In answering the following questions, assume that you are interested and committed to participate in an inservice program and that we are trying to fit the format of that program to your preference.

B-10 If an inservice program were held during the year, when should it be scheduled?

1) on weekends
2) during the "working day"
3) after working hours
4) before working hours
5) during the summer

B-11 If an inservice program were scheduled, during which three months (not necessarily consecutive) would it be most convenient for you to attend? (Circle <u>three</u> numbers on the Answer Sheet.)

1) August	5) December	9) April
2) September	6) January	10) May
3) October	7) February	11) June
4) November	8) March	12) July

B-12 Generally speaking, which type of inservice programs do you prefer?

1) intensive (only one gathering of the participants which may last for one or more days).
2) continuing (a series of gatherings on a daily, weekly, or monthly basis).

B-13 If you were to participate in an inservice program to be held within easy commuting distance and requiring several meetings of the participants (i.e., continuing), according to which schedule would you prefer that the meetings be held?

1) on consecutive days or nights
2) weekly
3) bi-weekly
4) monthly

B-14 If you were to participate in an inservice program which had only one gathering of the participants (i.e., "intensive"), what is the maximum number of days you feel you could/prefer to leave your job and attend the program?

1) 1 day
2) 2 days
3) 3 to 5 days
4) 6 to 10 days
5) more than 10 days
6) could not attend at all

B-15 What is your preferred maximum size of a discussion group?

1) 5 or fewer people
2) 6 to 10 people
3) 11 to 15 people
4) 16 to 20 people
5) 21 to 30 people
6) more than 30 people

B-16 Who would you prefer to conduct inservice programs? (Please circle one.)

1) local teachers
2) school principals
3) IIC
4) central office staff
5) state education agency personnel
6) regional education agency personnel
7) professional educational organization staff
8) college/university professors
9) university-related agencies staff
10) combination of the above (specify)_____

B-17 Assuming that each of the following modes of instruction is presented expertly, please indicate your degree of preference for each. (Circle a number in one column for <u>each</u> item.)

01) lecture
02) discussion groups
03) simulation
04) gaming
05) computer-assisted instruction
06) programmed learning
07) independent study
08) tele-lecture
09) films
10) case study
11) site visit
12) role playing
13) O.D. (organizational development) process techniques
14) supervised readings
15) internship experience
16) other (specify)_____

B-18 From the list of instructional modes in Question B-17, which is your most preferred mode?

B-19 From the list of instruction modes in Question B-17, which is your least preferred mode?

END OF QUESTIONNAIRE

Thank you.

Place your answer sheet and the signed Consent Form in the questionnaire and give them to the researcher.

ANSWER SHEET -- PART A

1) _____
2) _____
3) 1 2 3 4 5
4) 1 2
5) 1 2 3 4
6) 1 2 3 4 5 6 (specify)_____

DIRECTIONS: *Circle the response that is appropriate for each question.*

A-1

	EXPERIENCE				NEED			
	Expertise	Some Expertise	Some Knowledge	No Knowledge	Very Strong	Strong	Moderate	None
01	4	3	2	1	4	3	2	1
02	4	3	2	1	4	3	2	1
03	4	3	2	1	4	3	2	1
04	4	3	2	1	4	3	2	1
05	4	3	2	1	4	3	2	1
06	4	3	2	1	4	3	2	1
07	4	3	2	1	4	3	2	1
08	4	3	2	1	4	3	2	1
09	4	3	2	1	4	3	2	1
10	4	3	2	1	4	3	2	1

A-3 Most beneficial in improving instruction is _____.
(number)

A-2 Other needed staff development workshop topics: _____

_____

_____

Turn the Answer Sheet over for Part B

ANSWER SHEET -- PART B

DIRECTIONS: *Circle the response that is appropriate for each question.*

B-1 1 2 3 4 5 6

B-2 1 2 3 4 5 6

B-3 1 2 3 4 5 6 7 8 9

B-4 1 2 3 4 5 6 7 8 9 10 ↓

B-5

	Strongly Attractive	Attractive	Inconse-quential	Detractive
01	4	3	2	1
02	4	3	2	1
03	4	3	2	1
04	4	3	2	1
05	4	3	2	1
06	4	3	2	1
07	4	3	2	1
08	4	3	2	1
09	4	3	2	1
10	4	3	2	1
11 ↓	4	3	2	1

B-6 Number_____is most attractive

B-7 1 2 3 4 5 6

B-8 1 2

B-9 1 2 3 4 5 6 7 ↓

B-10 1 2 3 4 5

B-11 1 2 3 4 5 6 7 8 9 10 11 12

B-12 1 2

B-13 1 2 3 4

B-14 1 2 3 4 5 6

B-15 1 2 3 4 5 6

B-16 1 2 3 4 5 6 7 8 9 10 ↓

specify number(s)

B-17

	Strongly Prefer	Mildly Prefer	Indifferent	Dislike	Not Appro-priate
01	4	3	2	1	5
02	4	3	2	1	5
03	4	3	2	1	5
04	4	3	2	1	5
05	4	3	2	1	5
06	4	3	2	1	5
07	4	3	2	1	5
08	4	3	2	1	5
09	4	3	2	1	5
10	4	3	2	1	5
11	4	3	2	1	5
12	4	3	2	1	5
13	4	3	2	1	5
14	4	3	2	1	5
15	4	3	2	1	5
16 ↓	4	3	2	1	5

B-18 Most preferred: _____ (number)

B-19 Least preferred: _____ (number)

Appendix C

INTERVIEW SCHEDULE

Date_____

School_____ Respondent Number_____

Position_____ Unit_____ Years at School_____

Teaching Experience_____ Years doing IGE_____

1. What was your reaction to the Staff Development/Inservice survey that you filled out today? Did you have any problems with any of the items? What does the term "staff development" (inservice) mean to you? How would you define a staff development "need"?

2. What do you feel is your greatest staff development need at this time? What do you feel is the greatest staff development need of the unit? What would an ideal inservice program be like? (probe for details)

3. What were your greatest staff development needs when you first started IGE? Have your staff development needs changed since you started to use IGE? If so, can you describe this change? Tell me about this year's inservice program. (probe for details) Who chose topics, what topics, who ran them, how many, etc.

Is there anything else you can tell me about staff development or inservice here at your school at this time?

Appendix D

WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR INDIVIDUALIZED SCHOOLING

UNIVERSITY OF WISCONSIN · MADISON · SCHOOL OF EDUCATION
1025 W. Johnson Street · Madison, Wisconsin 53706 · (608) 263-4200

November 1979

The mission of the Wisconsin Research and Development Center is to improve the quality of education by addressing the full range of issues and problems related to individualized schooling. This study focuses upon the vital area of staff development for teachers. The results will help us to better understand how staff development needs change over a period of time and the best way to meet these needs.

We would ask that you please take the time to complete the attached questionnaire. The results of this study will contribute to a better understanding of the environment in which staff development programs are conducted as well as point to new and better staff development activities. The results of this survey will be shared with you in a few weeks and may be helpful in planning future staff development activities for your school.

If you have any questions, please feel free to call (608) 263-3733.

Sincerely,

Marvin J. Fruth
Professor and
Faculty Associate

Patrick J. Fleming
Project Assistant
Studies of
Implementation

MJF/PJF/jjd

attachments

A. STAFF NEEDS INVENTORY

Please indicate what you perceive to be the inservice staff development needs of teachers on your staff for the following 10 topical areas. Use these definitions:

ALL teachers need inservice on this topic.
MOST teachers need inservice on this topic.
SOME teachers need inservice on this topic.
NO teachers need inservice on this topic.

1. Topics for staff development programs:

01	Opportunities to help teachers mainstream children with exceptional educational need.	ALL	MOST	SOME	NONE
02	Ways to improve the team planning process.	ALL	MOST	SOME	NONE
03	Procedures for recording student achievement.	ALL	MOST	SOME	NONE
04	Strategies to help teachers deal with their personal needs, e.g., stress.	ALL	MOST	SOME	NONE
05	Techniques for motivating students.	ALL	MOST	SOME	NONE
06	Choosing learning materials for students.	ALL	MOST	SOME	NONE
07	Ways of teaching gifted and talented students.	ALL	MOST	SOME	NONE
08	Methods to improve skills in evaluating students.	ALL	MOST	SOME	NONE
09	Strategies to deal with students' affective development.	ALL	MOST	SOME	NONE
10	Skills in writing learning objectives.	ALL	MOST	SOME	NONE

2. Other needed inservice staff development workshop topics.

_____
_____
_____
_____
_____
_____
_____
_____

B. IMPLEMENTING INSERVICE STAFF DEVELOPMENT PROGRAMS:

1. How many staff development programs were sponsored last year for teachers at your school? _____

2. (a) Please estimate the total amount spent annually on staff development in your school a) $ _____

(b) Approximately what percent of this amount comes from school district revenues? b) _____

(c) Please specify the major non-district sources of revenue, if any.

_____

_____

3. Is participation in staff development programs mandatory? (check one)

Yes _____
No _____
Only for certain programs _____

4. (a) Please check all of the following benefits which are typically offered to participants attending staff development programs in your school:

a) school district credit for pay purposes a) _____
b) released time b) _____
c) university credit c) _____
d) stipend d) _____
e) travel expense e) _____
f) certificate of achievement f) _____
g) other (please specify) _____ g) _____

(b) Which one of the above-mentioned benefits do you feel is most effective in motivating teachers to participate in staff development programs. Please indicate your choice by entering the letter of the appropriate response in the space below.

_____

5. In your estimation, which three of the following reasons have prospective participants given most frequently for not attending staff development programs? Rank your three choices from "1" (most frequent expressed) to "3" (third most frequently expressed reason).

Rank

a) The programs were not centered on topics which were of interest or use to me. ___
b) I could not obtain released time. ___
c) The programs were not scheduled at times I could attend. ___
d) I could not obtain the necessary funds for travel. ___
e) I generally find staff development programs to be a waste of time. ___
f) My job responsibilities did not permit my absence. ___
g) My superiors did not support my participation. ___
h) I was disappointed with past programs in which I have participated. ___
i) Other (please specify) _____ ___

6. Would you please rank the following eight factors by the degree to which they impede more widespread participation in your staff development programs. Place a "1" next to the factor which impedes your programs most, a "2" next to the second most troublesome factor, etc.

a) lack of support and participation from superiors. ___
b) lack of motivation by participants. ___
c) limitations imposed by teacher or administrator contracts ___
d) inadequate training staff for conducting programs ___
e) inadequate training materials ___
f) difficulty in scheduling the programs at appropriate times ___
g) lack of funds for providing released time ___
h) state or other non-district regulations ___

7. Please rank the following six items in terms of the difficulty they present to your staff in designing and implementing staff development programs. Place a "1" next to the item which gives you the most difficulty, a "2" next to the item which is second most troublesome, etc. If an item is irrelevant to your situation, place an "X" in the appropriate space.

a) scheduling programs at a time when all or most of the prospective participants can attend ___
b) developing or obtaining appropriate training materials ___
c) identifying topics which attract prospective participants to attend the program ___
d) identifying a site for the program which is both attractive, cost efficient, and convenient to prospective participants ___
e) identifying skilled trainers to lead the program ___
f) obtaining recognized scholars to speak at the program ___

8. Assume that your budget for providing inservice opportunities were suddenly increased by 25%, what would you spend this money on? Please assume you are free to use the money as you see fit.

_____

_____

_____

_____

_____

9. What, in your opinion, are the major problems which you face in providing effective inservice opportunities for your teachers?

_____

_____

_____

_____

_____

10. What percentage of your time would you estimate you devote to planning, implementing or evaluating staff development activities for your teachers?

_____%

11. Who do you think should have primary responsibility for planning and organizing inservice professional development programs for teachers? (Circle one.)

1) local teachers
2) school principals
3) IIC
4) central office staff
5) state education agencies
6) regional educational agency
7) colleges/universities
8) university-related agencies
9) professional educational organizations

12. Who do you think should conduct inservice programs for teachers? (Circle one.)

1) local teachers
2) school principals
3) IIC
4) central office staff
5) state education agency personnel
6) regional education agency personnel
7) professional educational organization staff
8) college/university professors
9) university-related agencies staff
10) combination of the above (specify)_____

Appendix E

**WISCONSIN RESEARCH AND DEVELOPMENT CENTER
FOR INDIVIDUALIZED SCHOOLING**

UNIVERSITY OF WISCONSIN - MADISON · SCHOOL OF EDUCATION
1025 W Johnson Street · Madison, Wisconsin 53706 · (608) 263-4200

August 11, 1979

Dear Colleague:

Enclosed is a list of 22 staff development topics that have been compiled. Please look them over and delete any that you feel are not applicable for elementary teachers. Also, please add any topics that you think are missing that would be essential for a good staff development program on the elementary level. If you would rank these topics from 1 to 10, from most important to least important, it would be very helpful. Thank you very much for your help on this matter.

Sincerely,

Patrick J. Fleming
Project Assistant
Studies of Implementation

enclosures

STAFF DEVELOPMENT TOPICS

IMPROVING THE PRESENT, OR DEVELOPING NEW . . . . . .

01 terminal objectives related to your field of study.

02 administrative arrangements that provide for an optimum amount of shared decision making.

03 team teaching arrangements that provide for optimum interaction among teachers and personalized instruction of students.

04 planning processes of a team related to setting objectives, allocating resources, assigning responsibilities, implementing activities and evaluating outcomes.

05 ways of grouping students so as to optimally personalize their instruction.

06 procedures for optimum use of open classroom space or other large-group instructional areas.

07 skills in writing the learning objectives for a unit of instruction in your teaching field.

08 ways of organizing your curricular area and instructional sequences to maintain or to secure continuous progress for each student.

09 advising arrangements in which each teacher serves as the educational, personal, and career advisor of a group of students with the assistance of a guidance counselor.

10 materials for use with students in the advisement program.

11 practices and programs in dealing with students' personal, social, emotional, and moral development.

12 techniques for motivating students.

13 practices and programs dealing with student career awareness, planning and experiences.

14 learning materials for students to use individually or in small groups, e.g., learning activity packages, unipaks, or centers.

15 skills in the use of different modes of student evaluation, e.g., pencil-and-paper tests, performance tests, classroom observations, work samples, or interviews.

16 procedures for assessing student minimum competencies in the basic skills.

17 record-keeping procedures and practices regarding individual student achievement.

18 uses of the computer to assist you and other teachers in managing instruction and keeping records regarding students' attainment of instructional objectives.

19 means of using community resource personnel in the instructional program.

20 opportunities for student learning experiences in the community.

21 procedures for reporting student progress to parents.

22 means of using volunteer aides in the educational program.

Appendix F

August 11, 1979, Staff Development Topics Ranked by Panel of Experts

	Spartanburg					R & D Center					
TOPICS	1	2	3	4	5	6	7	8	9	10	TOTALS
1		3		16	-	1	7		-	19.	134
2.		4		1	5	-	15	9	-	7	107
3.		1	1	5	4		14	2		6	77
4.		3	2	4	8		2	3	1	1	46
5.		2	5	3	3		12	1	3	13	64
6.		6		14	6		13	11	4	22	133
7.		3		13	10	2	19	10	2	14	95
8.		1	6	2	1	3	3	8	5	8	37
9.		8		9	-		-		14	20	161
10.		8		10	-		-	17	15	21	159
11.		7	3	6	7	6	6	12	16	3	66
12.		2	4	11	2		7	13	13	2	76
13.		10		12	-		-		10	15	157
14.		3	9	7		7	4	5	6	17	80
15.		2	10	8	9	4	8	4	7	11	63
16.		8	8	15			9	6	8	9	107
17.		4a		22		8	16	7	9	4	114
18.		4c	7	21			20	19	-	5	120
19.		6a		19			10	16	11	12	140
20.		6b		18	-		11	18	12	16	147
21.		4b		20		9	17	15	17	10	136
22.		7		17			18	14	18	18	158

Top Ten Topics: 08
04
15
05
11
12
03
14
07
02

COMMENTS FROM SPARTANBURG ELEMENTARY SCHOOL STAFF AND FROM R & D STAFF

Respondent #1: "I feel they're all important topics and applicable for elementary teachers. I can't rank order them because their importance would be based on the needs of individual teachers and/or systems."

Respondent #2: "09 is not so much for elementary. 10 is "advisement" like Keigh Hubel etc.? 13 is not elementary. 23. Working effectively with student teachers & interns. 24. helping the mainstreamed child in your classroom. Some of them could be lumped together for a staff development project like 17, 21 & 18; 19 & 20; 04, 07, & 01."

Respondent #3: "23. Topics to deal with teachers' personal needs i.e., stress. 24. Topics allowing teachers to know themselves better i.e., self awareness."

Respondent #6: "01. Terminal objectives related to a particular subject area or grade level. 09-13. These all seem to be counseling related activities. May be 4 topics in this area is too much. If you need to cut down maybe it could be in this area. Could the ideas be consolidated?. 23. gifted and talented programs. 24. other (specify)_____"

Respondent #7: "Reword 01. 03 individually guided for "personalized". Same for 05. 06 "classroom space or other school facilities." Isn't 15 a skill implied or subsumed in 16? Or one and the same? 16 (assuming someone, group, etc. has identified minimum competencies) 22 "volunteer aides" these are community resource personnel (see #19). 23. Skills in group processes and decisionmaking."

Respondent #8: "01 sounds like secondary. 09 is alright if for k-8 school but may not be applicable for k-6. Same for 13. The topics appear to be relevant for elementary schools. They are broad and applicable."

Appendix G

WISCONSIN RESEARCH AND DEVELOPMENT CENTER
FOR INDIVIDUALIZED SCHOOLING

UNIVERSITY OF WISCONSIN · MADISON · SCHOOL OF EDUCATION
1025 W Johnson Street · Madison, Wisconsin 53706 · (608) 263-4200

September 24, 1979

Dear Colleague:

Enclosed is a list of 22 staff development topics that have been compiled. Please look them over and delete any that you feel are not applicable for elementary teachers. Also, please add any topics that you think are missing that would be essential for a good staff development program on the elementary level. If you would rank these topics from 1 to 22, from most important to least important, it would be very helpful. Thank you very much for your help on this matter.

Sincerely,

Patrick J. Fleming
Project Assistant
Studies of Implementation

enclosure

STAFF DEVELOPMENT TOPICS

IMPROVING THE PRESENT, OR DEVELOPING NEW . . . . . .

01 terminal objectives related to your field of study.

02 administrative arrangements that provide for an optimum amount of shared decision making.

03 team teaching arrangements that provide for optimum interaction among teachers and personalized instruction of students.

04 planning processes of a team related to setting objectives, allocating resources, assigning responsibilities, implementing activities and evaluating outcomes.

05 ways of grouping students so as to optimally personalize their instruction.

06 procedures for optimum use of open classroom space or other large-group instructional areas.

07 skills in writing the learning objectives for a unit of instruction in your teaching field.

08 ways of organizing your curricular area and instructional sequences to maintain or to secure continuous progress for each student.

09 advising arrangements in which each teacher serves as the educational, personal, and career advisor of a group of students with the assistance of a guidance counselor.

10 materials for use with students in the advisement program.

11 practices and programs in dealing with students' personal, social, emotional, and moral development.

12 techniques for motivating students.

13 practices and programs dealing with student career awareness, planning and experiences.

14 learning materials for students to use individually or in small groups, e.g., learning activity packages, unipaks, or centers.

15 skills in the use of different modes of student evaluation, e.g., pencil-and-paper tests, performance tests, classroom observations, work samples, or interviews.

16 procedures for assessing student minimum competencies in the basic skills.

17 record-keeping procedures and practices regarding individual student achievement.

18 uses of the computer to assist you and other teachers in managing instruction and keeping records regarding students' attainment of instructional objectives.

19 means of using community resource personnel in the instructional program.

20 opportunities for student learning experiences in the community.

21 procedures for reporting student progress to parents.

22 means of using volunteer aides in the educational program.

Appendix H

Washington Elementary School
Staff Development Topics

September 26-28, 1979

COMMENTS:

Respondent 2: I feel our location situation is doing all 22 points above very well at my level of teaching. I don't feel we need any more planning from outside the staff. If Wisconsin school staffs are really in this much need, God have pit on my school tax monies--local, state, and federal. It's time to stop some of this!

Responder 12: I'm unsure about this (18), I do see value in saving time but I do question its usage.

Include:

Inservice/workshop opportunities to help teachers understand and better prepare for working with handicapped children or children with medical problems of various nature (hard of hearing, diabetics, L.D. pupils, etc.)

Understanding how to work and plan with special ed. teachers regarding expectations in a mainstream situation.

Responder 16: 2. Training in handling handicapped children in the classroom.

1. Mental health for teachers.

Responder 19: 1. Inservice programs which will benefit the teachers' mental health, and which will help us work with handicapped students.

Appendix I

STAFF DEVELOPMENT TOPICS FOR ELEMENTARY TEACHERS

PLEASE RANK THE FOLLOWING STAFF DEVELOPMENT TOPICS FROM 1. Most Impdrtant to 10. Less Important

IMPROVING THE PRESENT, OR DEVELOPING NEW.....

TOPIC RANK

1. _____ ways of organizing your curricular area and instructional sequences to maintain or to secure continuous progress for each student.
2. _____ ways of grouping students so as to optimally personalize their instruction.
3. _____ techniques for motivation students.
4. _____ practices and programs in dealing with students' personal, social, emotional, and moral development.
5. _____ learning materials for students to use individually or in small groups, e.g., learning activity packages, unipaks, or centers.
6. _____ skills in the use of different modes of student evaluation, e.g., pencil-and-paper tests, performance tests, classroom observations, work samples, or interviews.
7. _____ planning processes of a team related to setting objectives, allocating resources, assigning responsibilities, implementing activities and evaluating outcomes.
8. _____ skills in writing the learning objectives for a unit of instruction in your teaching field.
9. _____ team teaching arrangements that provide for optimum interaction among teachers and individualized instruction of students.
10. _____ procedures for assessing student minimum competencies in the basic skills.
11. _____ record-keeping procedures and practices regarding individual student achievement.
12. _____ ways of working effectively with student teachers and interns.
13. _____ opportunities to help teachers understand and prepare for the mainstreamed handicapped child in the classroom.
14. _____ skills or strategies to deal with the personal needs of teachers i.e., stress, self awareness, mental health.
15. _____ ways of meeting the needs of the gifted and talented students.

_____ OTHERS: PLEASE LIST ANY OTHER STAFF DEVELOPMENT TOPICS FOR ELEMENTARY TEACHERS THAT HAS NOT BEEN ADDRESSED.

Appendix J

STAFF DEVELOPMENT TOPICS FOR ELEMENTARY TEACHERS

DIRECTIONS: Please rank the following staff development topics from most important to least important. Use "1" for the most important. Rank at least 10.

RANK	TOPIC
____ 1.	Ways to provide continuous progress for each student.
____ 2.	Ways of grouping students to individualize instruction.
____ 3.	Techniques for motivating students.
____ 4.	Practices and programs in dealing with students' affective development.
____ 5.	Learning materials for students, e.g., learning activity packages, unipacks, or centers.
____ 6.	Skills in student evaluation, e.g., pencil-and-paper tests, performance tests, classroom observations, work samples, or interviews.
____ 7.	Team planning processes, e.g., setting objectives, allocating resources, and implementing instructional activities.
____ 8.	Skills in writing the learning objectives.
____ 9.	Team teaching arrangements that provide for optimum interaction among teachers.
____10.	Procedures for assessing minimum student competencies in the basic skills.
____11.	Record keeping procedures regarding individual student achievement.
____12.	Ways of working more effectively with student teachers and interns.
____13.	Opportunities to help teachers mainstream children with exceptional educational needs.
____14.	Skills or strategies to deal with the personal needs of teachers, e.g., stress, self-awareness, mental health.
____15.	Ways of teaching gifted and talented students.
OTHERS	
____	Please list any other staff development topics for elementary teachers that have not been addressed.

Appendix K

A. STAFF NEEDS INVENTORY

Please indicate what you perceive to be the inservice staff development needs of teachers on your staff for the following 14 topical areas. Use these definitions:

ALL teachers need inservice on this topic.

MOST teachers need inservice on this topic.

SOME teachers need inservice on this topic.

NO teachers need inservice on this topic.

1. Topics for staff development programs:

01	Opportunities to help teachers mainstream children with exceptional educational needs.	ALL	MOST	SOME	NONE
02	Team teaching arrangements that provide for optimum interaction among teachers.	ALL	MOST	SOME	NONE
03	Team planning processes, e.g., setting objectives, allocating resources, and implementing instructional activities.	ALL	MOST	SOME	NONE
04	Record-keeping procedures regarding individual student achievement.	ALL	MOST	SOME	NONE
05	Skills or strategies to deal with the personal needs of teachers, e.g., stress, self-awareness, mental health.	ALL	MOST	SOME	NONE
06	Techniques for motivating students.	ALL	MOST	SOME	NONE
07	Learning materials for students, e.g., learning activity packages, unipacks, or centers.	ALL	MOST	SOME	NONE
08	Ways of teaching gifted and talented students.	ALL	MOST	SOME	NONE
09	Skills in student evaluation, e.g., pencil-and-paper tests, performance tests, classroom observations, work samples, or interviews.	ALL	MOST	SOME	NONE
10	Ways of grouping students to individualize instruction.	ALL	MOST	SOME	NONE
11	Practices and programs in dealing with students' affective development.	ALL	MOST	SOME	NONE
12	Procedures for assessing minimum student competencies in the basic skills.	ALL	MOST	SOME	NONE
13	Ways to provide continuous progress for each student.	ALL	MOST	SOME	NONE
14	Skills in writing learning objectives.	ALL	MOST	SOME	NONE

2. Other needed inservice staff development workshop topics: Please list:

_____

Appendix L

STAFF DEVELOPMENT NEED INVENTORY

ID#

or name_____

Please indicate the extent to which you would be interested in learning more about each topic. Use the following definitions:

Need Categories:

4 = Very Strong--if at all possible I would participate in a staff development program on this topic.

3 = Strong--would probably participate in a staff development program on this topic.

2 = Moderate--would participate in a staff development program on this topic only if it were "convenient" or "required."

1 = None--would not attend inservice on this topic.

RATING	TOPICS FOR STAFF DEVELOPMENT PROGRAMS
4 3 2 1	01 Opportunities to help teachers mainstream children with exceptional educational needs.
4 3 2 1	02 Ways to improve the team planning process.
4 3 2 1	03 Procedures for recording student achievement.
4 3 2 1	04 Strategies to help teachers deal with their personal needs, e.g., stress.
4 3 2 1	05 Techniques for motivating students.
4 3 2 1	06 Choosing learning materials for students.
4 3 2 1	07 Ways of teaching gifted and talented students.
4 3 2 1	08 Methods to improve skills in evaluating students.
4 3 2 1	09 Ways of grouping students to individualize instruction.
4 3 2 1	10 Strategies to deal with students' affective development.
4 3 2 1	11 Ways to provide continuous progress for each student.
4 3 2 1	12 Skills in writing learning objectives.

Appendix M

WISCONSIN RESEARCH AND DEVELOPMENT CENTER
FOR INDIVIDUALIZED SCHOOLING

UNIVERSITY OF WISCONSIN · MADISON · SCHOOL OF EDUCATION
1025 W. Johnson Street · Madison, Wisconsin 53706 · (608) 263-4200

The policies of the University of Wisconsin-Madison, and the National Institute of Education require that all participants in research studies give written permission for their participation.

Marvin J. Fruth
Professor and Faculty Associate

Linda K. Barrows
Project Specialist

Patrick J. Fleming
Project Assistant

- -

I agree to participate in a study of the implementation of IGE. I reserve the right to refuse to participate in any specific activity of the study. I also reserve the right to withdraw from participation in the study at any point where I feel that it is not in my best interest or the boys' and girls' in the school.

Signature

Date

Center Planning and Policy Committee

Richard A. Rossmiller
Center Director

Dale D. Johnson
Area Chairperson
Studies in Language:
Reading and Communication

Marvin J. Fruth
Area Chairperson
Studies in Implementation
of Individualized Schooling

Penelope L. Peterson
Area Chairperson
Studies of Instructional Programming
for the Individual Student

James M. Lipham
Area Chairperson
Studies of Administration and
Organization for Instruction

Thomas A. Romberg
Area Chairperson
Studies in Mathematics and Evaluation
of Practices in Individualized Schooling

Associated Faculty

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Professor
Psychology

B. Dean Bowles
Professor
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Thomas P. Carpenter
Associate Professor
Curriculum and Instruction

W. Patrick Dickson
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Lloyd E. Frohreich
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Educational Administration

Marvin J. Fruth
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